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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

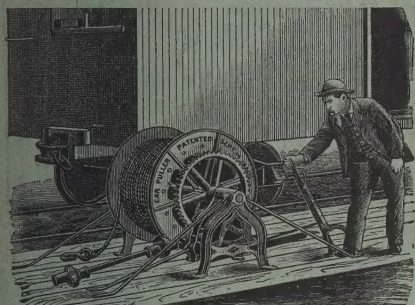
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VOL. V.

CHICAGO, ILLINOIS, JANUARY 15, 1887.

No. 7.

SUBSCRIPTION PRICE,
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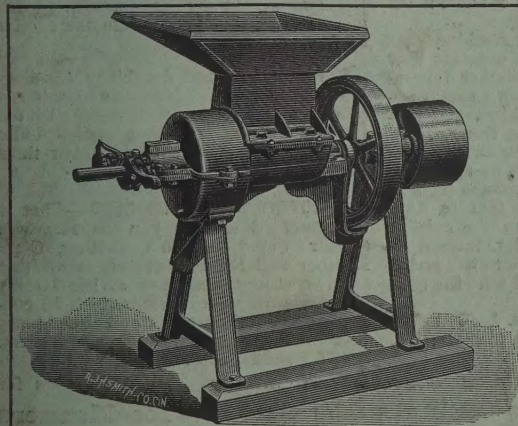


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It is the only mill in the world
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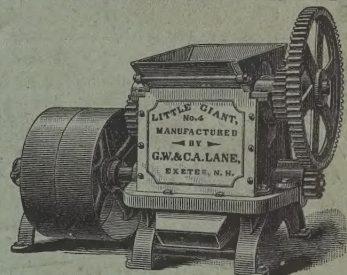
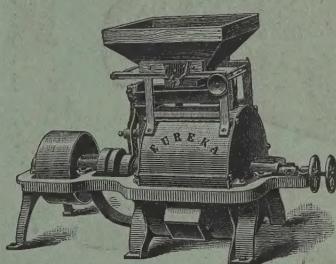
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Together with REELS, ELEVATORS, Etc.,

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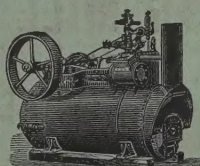
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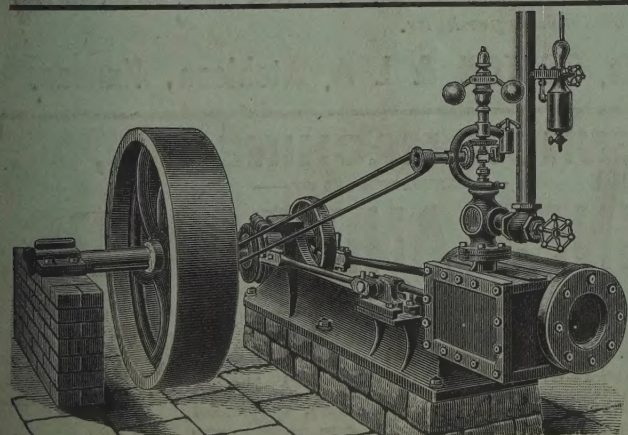
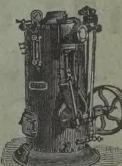
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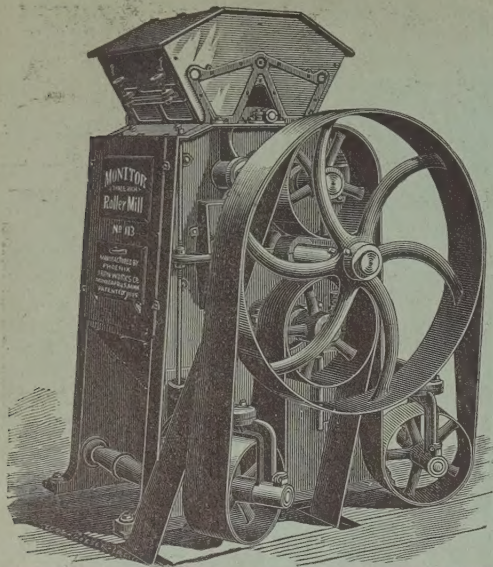
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We are Licensed by J. M. Harper to sell Dumps, and anyone purchasing
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A MILL FOR THE MILLIONS!

"Have never seen its equal for reducing Screenings and would not be without it for five times its cost."

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"We have used it for a year and it shows no appreciable wear. It takes less power than any roll we ever saw."

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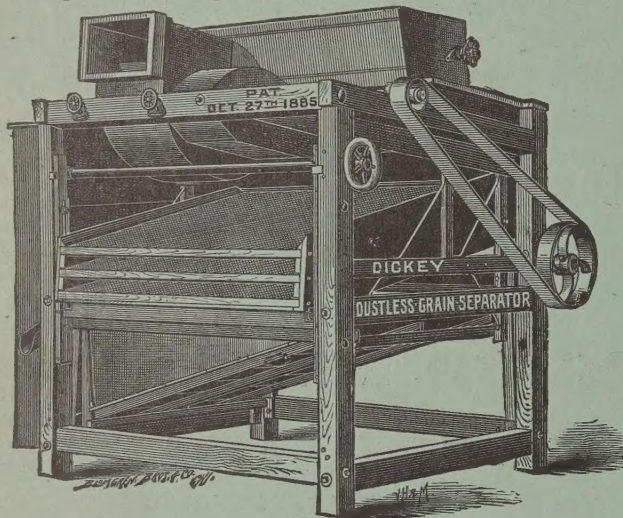
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SOLID FRAME. LIGHT RUNNING.
ONLY ONE BELT. LARGE CAPACITY.
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Every Machine warranted on 30 days' trial.

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This Separator is our latest and most perfect, and guaranteed to be the superior of any now on the market. This machine, as can be seen by the cut, is not a warehouse flanging mill with one patent attachment, but is a Dustless Separator, made for the express purpose of thoroughly cleaning and separating all kinds of grain in large quantities; its construction is such that the working machinery and weight is all within the parts or anchors.



WE CLAIM FOR IT SUPERIORITY

Over everything of the kind made, in simpleness, durability, saving of power, capacity and cost of construction. Its height will accommodate any number of spouts from different points, without moving machine; they have a capacity of from 700 to 1,500 bushels per hour. We also make the Giant Dustless, formerly made by Dickey & Pease, and control the manufacture of the Standard Grain Separators. Sent on approval to any reliable party. For full particulars, address

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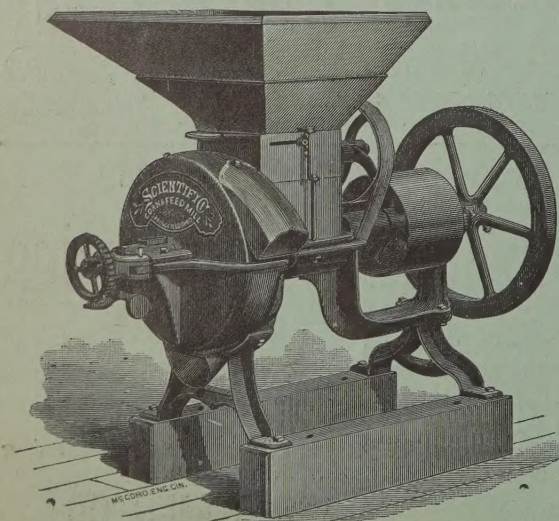
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EARTH
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Ear Corn, Shelled
Corn and all
Small Grains.

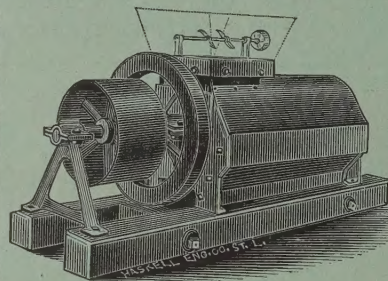
Grinding Plates a special metal hard as Steel. Have double capacity, as they Sharpen Themselves on being reversed.
FULLY GUARANTEED.



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✦ KANSAS ✦ Kansas Cleaner Corn Sheller!



Manufactured only by

SEATON & LEA,

This Sheller possesses advantages over all others in many respects.

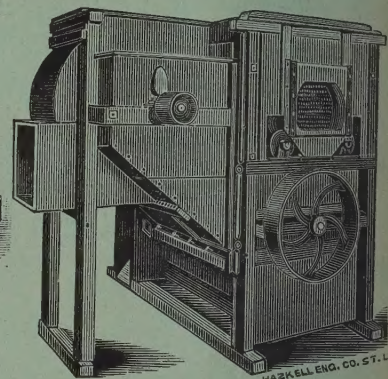
Its freedom from injury by the passage of iron, stone or other hard substances is of itself an invaluable feature, as it is well known the passage of a car link through an ordinary conical Sheller renders it unfit for further use.

The combination with the machine of an automatic feeder whereby a constant flow of corn is maintained is another feature of great importance, insuring a steady delivery of corn to the machine, and preventing its bridging over in the bin, saving an extra man. The construction of the shelling cylinder is such as to secure a greater capacity than is attained in any other sheller, for the reason that as soon as the corn is liberated from the cobs it is discharged from the sheller, instead of making an almost solid mass to be carried along and finally discharged with the cobs at the tail of the machine.

We make three sizes: No. 1, 400 to 700 bushels; No. 2, 600 to 1,000 bushels; No. 3, 2,000 bushels per hour.

We manufacture extra large sizes of Shellers and Cleaners for Large Elevators, where great capacity of work is required. Also **Re-Cleaners** for Wheat, Corn and other grains. Different Sizes; Capacity from 2,000 to 7,000 bushels per hour.

Address, SEATON & LEA, Atchison, Kansas.



COMBINED.

We guarantee this cleaner will perform good work for elevator and warehouse purposes on any kind of grain, without any change other than to regulate the suction of fan.

For simplicity and durability it is absolutely unexcelled. We make of this machine also two sizes to correspond with our sheller, but for special purposes build machines of any capacity up to ten thousand bushels per hour.

A FACT WE WISH TO IMPRESS.—That in the use of this cleaner you dispense with an extra Separator, Boot, Belting, Cups, Lumber and Room necessary in locating and operating them, thus saving largely in the cost of your elevator, both in construction of building and other machinery over other cleaners now in the market. **DON'T FORGET THIS.**

LENNOX MACHINE CO.,
—MANUFACTURERS OF—
ENGINES AND BOILERS,
—AND DESIGNERS FOR—
ELEVATORS, MILLS, ETC.,

Anywhere where a strong, serviceable, well-built outfit is needed. Also, Pulleys, Hangers, Shafting, Boxes, Gearing, and General Elevator and Mill Supplies. Promptness and reasonable prices. Special attention given to repairing Engines, Boilers, and Machinery. Get prices of

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GRAIN RATES IN NEBRASKA.

Among other matters the annual report of the railroad commissioners of Nebraska treats of the rates charged for the transportation of grain. The commissioners say: "After the abundant crops of 1885, prices of wheat and corn fell in the Eastern markets to figures that made it impossible to market the surplus grain of the state on terms which afforded a reasonable profit to the producers of Nebraska. The interposition of the board to secure a lower rate from the Missouri River and from interior stations to Chicago was frequently suggested by farmers and shippers. As this was a matter of inter-state commerce, the board had no jurisdiction, but it acted so far as it considered itself justified in the premises. On the 4th day of March, 1886, it addressed a circular letter to the several lines in the state, setting forth the hardships of the situation to Nebraska producers, and requesting the companies to confer with each other and with the board in the matter, and if possible to agree upon a lower rate for grain shipments to the Chicago market to relieve the financial distress of farmers and set the grain in motion.

"No action was taken by the roads for some time. Personal conferences with the managers, from time to time, held by the members of the commission, developed the objections entertained to the proposition.

"They were principally that an open reduction of the rates would do the grain-growers no good, for the reason that corresponding reductions would be demanded by the people of the surrounding states, and probably granted by the roads, and the effect would be merely to further reduce the market price of corn and wheat in Chicago by precisely the amount of reduction per bushel in the charges for transportation.

"It was claimed that the only course that would afford relief to Nebraska was an agreement to make a close temporary rate, low enough to remove the surplus corn, without creating undue disturbance of the prices in Chicago. Finally about the first of July last, a reduction amounting to about 4 cents per 100 was made, as the board understands, in an informal way and continued for some time. This reduction afforded considerable relief at many points where there had been a large accumulation of corn in the cribs of farmers and shippers.

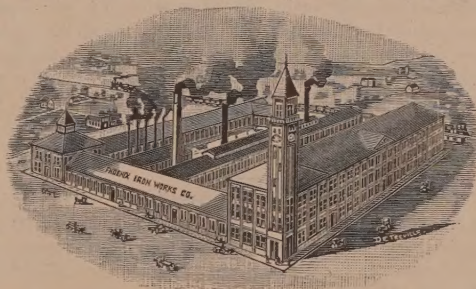
"But the policy of close in the place of open rates is one that the board cannot recommend, except in extreme cases. At the same time it is impossible to deny some force to the arguments of the railroad companies, that when there is a large surplus crop, more than there is any immediate demand for in the markets of the world, an open reduction in the rates of transportation will at once be discounted on the market, and while the roads are losers by the reduction, the consumers are alone benefited by the lower rate and the producers reap little or no advantage.

"It is claimed by the lines transporting grain to Chi-

cago that the present rate is reasonably low and that if materially reduced would not pay the expenses of the haul. To regulate these rates is, however, beyond the power of the state, and the whole subject must be relegated to Congress under the provision of the federal constitution that confers upon Congress authority to regulate inter-state commerce."

THE PHOENIX IRON WORKS CO.'S NEW WORKS AT ST. CLOUD, MINN.

On Jan. 1 the Phoenix Iron Works Co., of Minneapolis, took possession of their splendid new establishment at St. Cloud, Minn. The authorized capital, \$50,000, has all been paid in, and the machinery all placed and started up. The officers elected at the annual meeting of the company are: J. M. Rosenberger, president; J. M. Schutz,



vice-president and manager; John W. Head, secretary; H. J. Rosenberger, treasurer; J. B. Rosenberger, superintendent. The office of the company is at 46 Corn Exchange, Minneapolis.

The grounds that the buildings cover are 360 feet front, facing the canal, and 240 feet deep. The buildings cover the entire block, with railroad facilities at the back end. The three-story building, with the tower, is 62x280 feet, used for wood-working shop and main office. The machine shops extend the full length of the 360 feet frontage, with a two-story building on the lower corner and extending 280 feet deep. The foundry, 62x218 feet, and blacksmith shop, 40x60 feet, are located in the center. The shops are fitted up with the latest improved iron and wood-working machinery for manufacturing the firm's specialties. The new works form one of the largest establishments of the kind in the country; and the manufacturers of the "Monitor" and the "Crown" are to be congratulated that they have secured such splendid permanent quarters.

It is figured out that the wheat growers of North Dakota, in spite of the high rates of transportation, have an advantage of 7c. a bushel over the farmers of Iowa, 14c. of Nebraska, and 16c. over Kansas. Land is much cheaper in Dakota than in either of those states.

RESPONSIBILITY OF RAILROADS.

THE LAW LAID DOWN BY A LAYMAN.

In a recent number of the AMERICAN ELEVATOR AND GRAIN TRADE I saw the announcement that the grain dealers of Illinois are preparing a bill to be introduced in the general assembly in regard to responsibility of railroad companies in the matter of short weights in transportation of grain. This is human. The next thing in order will be a bill prepared by the amalgamated association of general freight agents in the interests of the new bill of lading scheme, which shall make them responsible as common carriers for nothing whatever. There is no question that many shortages occur by reason of defective cars; but how shall the grain dealers' proposed bill affect the matter in cases where it is perfectly clear that the cars were not defective?

No fair-minded person will dispute the principle that common carriers are responsible for the quantity and quality of goods entrusted to their care; that is to say, they are in duty bound to deliver to consignee in like quantity and condition the goods received from consignor. But where the evidence is not clear as to the quantity received, the railroad company cannot be held responsible after they have shown reasonable evidence that the quantity received, whether more or less than a certain quantity, was, in fact, transported and delivered. In the matter of grain shortage, the responsibility must therefore be determined by evidence as to how and where the shortage occurred. The shipper's evidence that a certain quantity was put into the car, and the receiver's evidence that a certain quantity was taken out of the car, are just as essential factors in this question as the railroad company's evidence that they delivered to consignee all that they had received from consignor. There are, therefore, three different agencies in the transportation of grain which are equally bound to a faithful performance of their several duties; and any efforts to fix the responsibility for shortages upon either one, without reference to the other two, would be grossly unjust. For example, if the amount delivered to a railroad company should by some mistake be less than the amount supposed to be delivered, it would be unjust to hold the railroad company responsible for the shortage, when in fact the difference between the supposed amount and the actual amount is still in the shipper's hands.

The case is not different where the grain has been delivered for shipment at a warehouse or elevator, as in this case the elevator company becomes the agent of the actual shipper. There is this difference only between grain received into an elevator for further shipment and grain loaded directly from the shipper's hands into a car for immediate shipment: In the first instance the grain loses its identity as to quantity, and must thereafter be represented by a warehouse receipt. This receipt is

virtually a certificate of deposit. The owner delivers his grain, sees it weighed, and in accepting a warehouse receipt virtually admits that the quantity of grain which he has put in store is correctly represented by the receipt. When he desires to ship he orders a certain quantity delivered to certain cars or vessels.

Now whether the warehouseman delivered *all* that the order called for is just as reasonable a subject for legislation as whether the carrier has delivered the full amount intrusted to his care. As long as it is possible that the shipper (elevator) has made some mistake in loading and the receiver has made some mistake in *unloading*, it will be impossible because wholly unjust to hold transportation companies responsible for a certain quantity. In short, the warehouseman's duty is to deliver a certain amount of grain—the carrier's duty is to deliver to the consignee all that he has received from the consignor. If this were not the true status of the matter, the carrier could be held responsible for gross carelessness or inaccuracy of the shipper, or *vice versa*. Certain it is that unless the shipper or warehouseman can produce good evidence that a certain amount was delivered to the carrier, he is just as much a party to the shortage as the carrier would be in case he could produce no evidence that all that he received was duly delivered. The same is true and just in regard to the receiver, whether the grain is delivered directly into the consignee's hands or unloaded at a public warehouse.

Having shown that the shipper, carrier and receiver are alike responsible, and that their irresponsibility must be determined only by reasonable evidence that their several duties were correctly performed, the next point in order will be to consider the methods of shippers and carriers with a view of fairly determining as to which of these agencies is the fitter subject for legislative medicine. If the carrier may be held responsible for the delivery of the full amount of grain received by him, and the grain is subject to elevator weights at destination, a mistake, either by the shipper or receiver, may result in an *apparent* shortage, whereas there may be no *actual* shortage whatever. As for instance if the actual amount delivered by the shipper should be short of the amount *intended* to be delivered, or if the actual amount received at destination should in fact be more than the receiver's record should show. In the first instance the amount of the apparent shortage would be still in the shipper's hands, and in the second instance it would be surplus grain in the receiver's hands. The matter is therefore reduced to a question of evidence on the part of the carrier as against evidence on the part of either the shipper or receiver or both.

The method or system employed by railroad companies is substantially the same for guarding against loss of grain while in transit as is used in transportation of other merchandise, with this exception: Grain in bulk is not receipted for except by car loads, the receipt bearing this notation: "More or less. This company not responsible for weight or grade at destination."

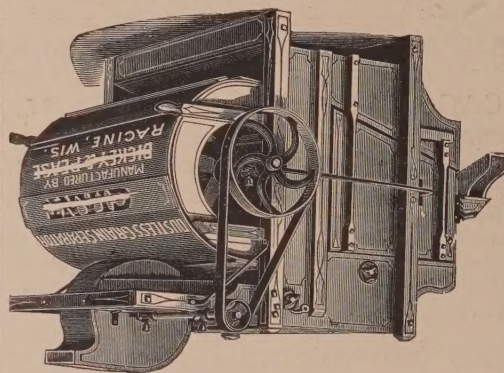
Now, unless the carrier is identified with the transaction as warehousemen also, they certainly fulfill their obligation when they have delivered intact the quantity of grain loaded into the car. The point is, Do they deliver all that has been loaded into this car? That they may know this, both for their own and their patrons' interests, a system of car sealing and condition reports is maintained at great expense. After a car has been loaded it is sealed, the seal bearing the number of the station where the loading is done. A car cannot be opened without destroying the seal; and wherever the car is stopped en route the seals are examined, and in case they have been tampered with a report is made, which locates the station at or near which it occurred. These reports contain not only condition of seals but any defects in the car itself, so that a car laden with grain could not travel far in a leaky condition without the leak being discovered and duly reported.

A common carrier's duty is to furnish vessels or cars that are not only secure at time of loading, but that shall remain secure during the transportation of the grain. These points are understood by the public as well as by railroad officials. Hence the latter's systematic efforts to guard against losses by theft or leakage. Now if it is reasonable that defective cars and careless handling of grain while in transit should subject the carrier to responsibility for losses thereby, why is it not reasonable that defective scales, errors in recording weights and tallies should be a factor in determining whether or not the shipper or receiver is at fault? The point is just here: If correct weights depend upon accuracy and honesty on

the part of shipper and receiver, and precaution and carefulness on the part of the carrier, a law which shall hold the carrier to a performance of *his* duty, and shall fail to require evidence from the receiver and shipper that *their* several duties were accurately performed, cannot possibly accomplish its object. Because shortages *are* caused by mistakes in weighing and tallying, and to hold the carrier responsible for shortages from these causes would be entirely unjust. There is now no uniformity of methods in loading grain on track and no systematic proof of correct weighing when shipped from or received at elevators. Will the general assembly enact a law making carriers responsible for a lack of better methods for loading and unloading grain when these are matters over which carriers have no jurisdiction? LAYMAN.

EXPLANATION AND APOLOGY.

In our last issue we announced the dissolution of partnership of the firm of Dickey & Pease, of Racine, Wis., and desired to say a word complimentary to Mr. Pease, who has so long been managing partner of that firm (Mrs. Lucy A. Dickey being a silent partner). We also felt called upon to say a good word for Mr. Pease's Patent Dustless Grain Separator—but two years on the



THE PEASE SEPARATOR.

market and proven a great success. In our haste to pay these compliments we were premature in announcing the name of the new corporation, as the "Pease & Crosby Mfg. Co." It was the intention at first to so name the company, but finally the more distinctive name of the "E. H. Pease Mfg. Co." of Racine, Wis., was adopted. We make this explanation in justice to Mr. Pease, and also present again an illustration of the separator referred to, so that our readers may know where these machines can be had. Mr. Pease being the patentee, of course no one else can make the machines covered by his patents.

DAKOTA GRAIN ELEVATORS.

The board of railroad commissioners of Dakota in their annual report for the year ending June 30, 1886, furnish some information in regard to grain movement and elevators in the territory, from which the following items are obtained:

The report says: "The provision of law compelling transportation companies to allow shipment of grain in car-load lots was a great relief from the exactions of elevator pools and had a beneficent result. But the influence of this law is circumscribed by the existing regulations of railroad companies compelling the shipper to load the car within a certain number of hours after being placed at his disposal. It has been found by experience that only those not far from stations can avail themselves of the privilege conferred. Few farmers have teams sufficient to haul a car load of wheat within the time granted by the transportation companies. One living more than three or four miles from the station finds it impossible, therefore, to ship wheat in car lots on his own account. The board believes that the privilege intended to be conferred by the law can be made practically available to all shippers by establishing a form of wheat storage receipts, differing slightly from those at present in general use. The form now generally issued contains a clause giving the elevator the option 'either to deliver the grade of wheat that this ticket calls for, or to pay the bearer the market price in money for the same, less the elevator charges.' Such a storage receipt compels the farmer to accept the price which the elevator is willing to give. This option should not be allowed to elevators. They

should be compelled by law to deliver the storage wheat on demand on surrender of the receipt. In this event the storage receipts would be negotiable and the farmer thus could send them to any place for sale and thus be relieved of the necessity of accepting the price of a local dealer. The farmer could thus send his storage receipt representing his wheat instead of sending the wheat itself."

According to the returns made by the commission there are in Dakota 344 elevators and 306 warehouses, having an aggregate capacity of 13,843,000 bushels. Of these there are in North Dakota 206 elevators, 54 warehouses, 9,012,000 bushels, and in South Dakota 138 elevators, 252 warehouses, and 4,831,600 bushels. These are scattered along the several lines of railroads as follows:

	Elevat- ors.	Ware- houses.	Bushels.
Manitoba.....	141	28	5,983,000
Northern Pacific.....	61	17	2,855,000
Milwaukee & St. Paul.....	98	106	2,590,400
Northwestern.....	35	146	2,120,200
Minneapolis & St. Louis.....	4	7	183,000
Omaha.....	2	...	85,000
On the Red River.....	3	...	72,000

Those of the Burlington, Cedar Rapids & Northern are not included.

GOV. MCGILL ON RAILROAD ELEVATORS.

Governor McGill, of Minnesota, evidently is not controlled by the "grain ring," as was alleged before election, if we take his views on the question of railroad elevators as a test. In his inaugural he said: In connection with the legislation proposed by the railroad and warehouse commission, I would suggest for your consideration whether it is not both right and practicable that the railway companies, which handle nearly all of the grain raised for market in the state, should not be required, when not receiving the same into cars directly upon delivery to them, to furnish storage for it in elevators or grain houses at the stations where the grain is received for shipment, free of expense to the shipper. Is there any sound reason for making grain an exception to the general rule that common carriers shall receive freight, and, if not shipped at once, shall furnish storage from the time it is offered for shipment until ready to be delivered to the consignee? That such a requirement would involve the companies in much expense and no little inconvenience at first must be admitted; and if the system should be inaugurated, a reasonable time should certainly be given the companies to furnish suitable storage structures. The proposed plan might, to a limited extent, displace elevators and grain houses now employed by other companies or persons, but I doubt if its effect in this direction would be material. The greater part of the grain now received by such houses is not delivered for transportation, but is either sold for cash, or receipts are taken by the producer with intent to sell at a future day and without shipping from the receiving station. Were the plan suggested to be put in operation, it is not perceived that it would interfere with the facilities for buying, receiving or storing of grain wherever such traffic is or could be carried on, but it would certainly stimulate railroad companies to provide, as far as possible, the necessary cars for the immediate shipment of grain as offered. No grain, of course, would be delivered to the companies but such as the owners desired to have immediately shipped. The most obvious reason for making grain an exception to the rule in sections where raised in great abundance is that the bulk of the crop intended for sale is thrown upon the market within a few months after harvest, and hence it would be unreasonable to require the companies to provide the necessary transportation to move it in so limited a time, or to store it for want of cars to haul it away. But as the wheat farmer becomes more forehanded, and is not compelled to realize on his crop immediately, he will largely provide for his own storage, and this objection would soon be greatly diminished. In this connection it would be well to consider whether the objections to the proposed plan are not to some extent founded on a participation in the elevator profits by some of the officers or managers of the roads, rather than on the plan itself. Whether or not these suggestions should be considered by you worthy to be formulated into a legal enactment, I have no hesitation in recommending such legislation as will make it a penal offense for any person owning, operating or managing a railroad in the state to participate in any profits derived from an elevator, grain house, wood or coal yard located on the line of his road.

THE JOHNSON & FIELD DUSTLESS SEPARATOR.

The machine which we have the pleasure of illustrating on this page, is manufactured by Messrs. Johnson & Field, Racine, Wis., the well and favorably known builders of mill and elevator separators. This is a single dustless separator, which they first commenced building at the beginning of this season, and which they are having a large call for, although, as is indicated, it has been but a very short time before the trade.

As the practical reader will see from the illustration, it is built very heavy and strong, insuring a very important advantage, that of durability. The irons and all portions of the machine receiving the greatest strain and wear, are correspondingly heavy, and constructed after the most approved patterns. The shaft is two inches in diameter, and revolves in babbitted self-oiling boxes, creating but little friction, and in consequence requiring less power to run it than if these arrangements were of a less satisfactory nature. It is also provided with very heavy eccentrics and shaker connecting rods.

It has a shake elbow which is so arranged that the shoe can be given a very short, quick shake, which, with the assistance of strong blast on the sieves, which proves very efficient in removing chaff, foul seeds, etc.

Attached to the machine is a suction fan, which is powerful enough to very effectually remove all dust, straws and light stuff, discharging same in dust box, and preventing the nuisance of having the house full of dust, as is the case with many separators, even some of those which are claimed to be "dustless."

It is seen by the reader familiar with separators that this machine possesses many important advantages, one of the principal being that a strong blast is applied to the sieves, so that, as the grain passes over same, oats and other foul stuffs are held up, and carried to the rear of the machine, in this way effectually extracting these troublesome impurities in a manner not to be attained in machines with less perfect arrangements.

Another advantage is that this separator is constructed with a side shake, which enables the manufacturers to use shorter sieves, and still have the same capacity; this is also an improvement, as it is a well-known fact that impurities in grain or seeds are much more liable to drop through in passing over a long sieve than in passing over a short one, and consequently remain in the grain instead of being carried out behind.

This separator has a capacity of from 200 to 400 bushels per hour and upwards, according to size, and does excellent work, satisfying the most exacting. It does equally as good work in cleaning seed as grain, and is claimed to be the most economical machine for all purposes.

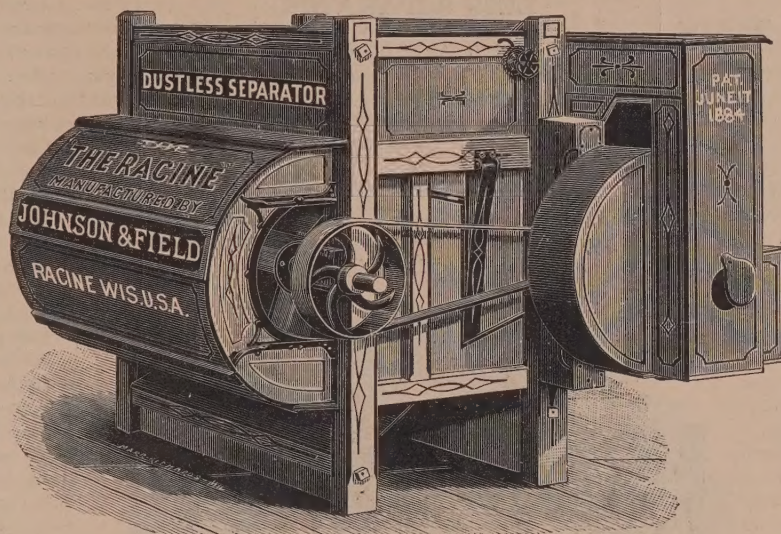
As a convincing proof that they are as represented, and do satisfactory work, the fact is cited that although a great many machines have been sold the past season, a large number of which have been purchased by millers, they tell us that not a single word of complaint has been heard.

They offer to send these separators to any parties wanting such a machine as is here described, and guarantee satisfaction. We would advise our friends among the grain men and millers, who desire to learn more about this separator, to write to Messrs. Johnson & Field, Racine, Wis., who, we have no doubt, will be very glad to give prices and full particulars promptly on application.

A North Carolina editor recently played a very cute sort of joke upon the President of the New York Produce Exchange. He wrote the New Yorker a letter, stating that a voracious worm was rapidly reducing the supply of new-crop corn in his vicinity, and promising to send by mail some samples which would show the results of the worm's ravages. The letter was given wide publicity in the Exchange, and the president and members grew quite anxious for a sight of the samples. A package followed the letter, and was carefully opened. It contained two small jugs, each holding about a gill of whisky, and labeled: "Hyphus de Stillus—the worm now working on the visible supply of corn."—*Northwestern Miller*.

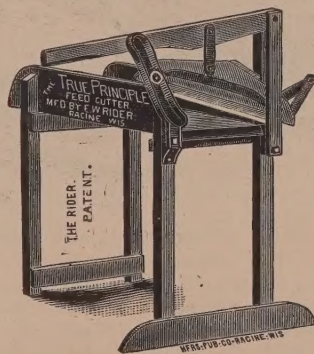
THE "TRUE PRINCIPLE" FEED CUTTER.

Among the most perfectly-constructed feed cutters that have come to our notice for a long time is one that is called the "True Principle" and represented by the accompanying cuts. And, judging from the movement of the knife and the ease with which it cuts, we should say it is well named. It is constructed so as to combine two perfect principles for cutting—the shear and slide. We all know that if a movement of the knife can be produced so that it will work on a shear or slant, and then also slide on the hay, it will cut easier than any other known principle. The knife of this machine, which, by the way, is easily sharpened, has this movement, the same that every farmer gives to an ordinary hay knife. Or again, it might be likened to the movement of the old-

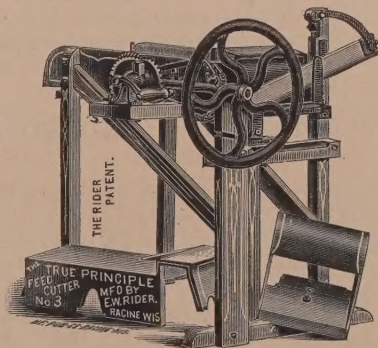


JOHNSON & FIELD'S DUSTLESS SEPARATOR.

fashioned scythe. This same movement of knife works equally well in either the lever, or the crank self-feed, or



power cutter. The feed of the machine is equally simple. We were surprised at the ease and rapidity of the work



done and wondered that the principle had not been applied to a cutter before.

The cutter is the invention of E. W. Rider, who has been manufacturing them for some time past. The demand for the cutters has been so great that Mr. Rider has been obliged to turn the manufacture and sales of them over to a new company, with ample capital, which will enlarge and improve the plant, and be able to fill orders quickly. The new company is called the E. W. Rider Mfg. Co.

The new company will, in addition to the feed cutters,

manufacture advertising signs of all descriptions, using nothing but the best paint and oil in the same; cigar-box lumber, map sticks, wheelbarrows, snow-shovels, and other articles of like nature will be manufactured by the same company.

The home office of the company is at Racine, Wis.—a guarantee in itself of the excellence of an agricultural implement. We should advise any of our readers in want of anything in their line, to correspond with the new company before purchasing.

EQUIPPING ELEVATORS.

BY R. JAS. ABERNATHEY IN "MODERN MILLER."

Country elevators, especially, should be provided with a short stroke, quick motion steam engine. A 10x16 engine making 275 revolutions will, as a rule, furnish sufficient power for the largest of the country elevators, and an 8x12 making 200 revolutions will fill the bill for the average house.

The most convenient, and really as a rule, the best way to attach the engine to the machinery, is to couple the main line of shafting in the basement directly to the crank-shaft of the engine. That is done by planting the engine foundation, which should always be deep and firm, close enough to the wall of the building to project far enough through to receive a coupling, which, instead of an ordinary face, should be a combination of face and clutch coupling, so that instead of throwing the entire strain on the bolts, as is mostly the case with ordinary face couplings, the clutches or lugs take their full share, which makes the connection much stronger, more durable, and much more to be depended upon.

The out-bearing of the engine shaft should be supported by a long, flat stone or piece of timber built up in the wall. In either case the supporting timber or stone should not only be well built into the wall of the building, but additionally well secured by having long bolts run well down below into the wall, so that all can be well clamped together in much the same manner as the bed of the engine is clamped to the foundation.

The bearing of an engine shaft is subjected to greater strains than the ordinary bearings of shaftings, and is, in consequence, more liable to get out of place, and thereby throw the shafting out of line, causing the engine to work badly and often making great trouble, not only to the owners and operators of the elevator and machinery, but also to the makers of the engine. Manufacturers of steam engines and other machinery are often put to a great and causeless expense, solely on account of the ignorance or carelessness, or both, of men who, while claiming to be mechanics, are often ignorant of the first principles of common mechanism.

Builders of elevators, whether mechanics or not, themselves ought to look sharply after the supposed mechanics they employ, and inquire closely into their fitness for the positions they propose to fill. For while they may be able to make the manufacturers of the engine stand the expense of correcting the evil for which they are largely responsible, they never get full compensation for the loss of time and annoyance involved by one mistake of an ignorant mechanic.

It is more convenient, and generally better, to hang the main line of shafting in the elevator basement, after leaving the end of the shaft to posts planted for that purpose, and in no other way connected to the building. The posts should be so arranged that they can be either raised or lowered, as the case may be, so as to keep the shaft level and in line with the engine to which it is connected, and which is supposed to be kept in place. The posts can be arranged with keys both at top and bottom, so that when it becomes necessary to raise the posts, which is most often the case, to level the shaft, all that need be done is to back the top keys and drive the lower keys further in.

There is often found among elevator men a disposition to stick their corn shellers down in a small, close and dark hole in the ground, where no living man can get at them in case of trouble of any kind. Now that should never be. There ought always to be room enough around the sheller for a man to work clearly and freely in case of a choke or any other difficulty. Much time and much

trouble will be saved if such preparations are made as to allow free and easy access to the sheller at all times and under all circumstances.

The dump hopper running to the sheller should be so arranged that the ear corn will be delivered to the sheller without chokes or other interference. To insure that, the various sides of the hopper ought to have an angle of forty-five degrees. That insures the corners of the hopper cleaning well. The sheller should be so supported and arranged that in case of breaks, or other troubles of any kind, it can be lowered and removed to one side so that the mechanic can get at it and remedy the evil quickly and easily. The pit that contains the sheller should not be too small nor yet too dark, which is far too often the case. Have plenty of light, plenty of air, and plenty of room to work in. In the end any elevator man will feel better satisfied with himself and his surroundings.

INSURANCE POLICIES ON GRAIN.

The Duluth fire has, in the first place, raised some new questions in the matter of adjustments, and in the second place has, in a measure at least, settled certain other questions which came up immediately after the fire, and which at one time threatened to increase the loss considerably. There being insurance not only on the grain itself, but also on the elevator charges on the grain, a conflict came up at first as to who was entitled to the grain—that was saved, and as neither party would yield, that is, the parties that were on the grain and those that had insured the charges, the grain was actually being washed away without benefit to either party. This difficulty was bridged by selling this damaged grain for the benefit of whom it might concern. The companies who were on the elevator charges were inclined to insist that the entire salvage on grain was theirs, but such ground can be hardly tenable, but rather that there must be an average determined upon equal to all. Again it would appear to us that if, as is the case, the elevator charges is a first lien on the grain itself, the rule that no one can insure anything that does not belong to them would apply, and any company that insured the grain would not be liable to an amount greater than the difference between the price of the grain and the amount of the elevator charges. If the charges were equal to the full value of the grain, then necessarily the policy was void, since evidently the holder of the warehouse receipt had no longer any interest in such grain. Objection may be made that such a case as the charges equaling the value of the grain could not possibly happen, but we actually know of cases of this kind; indeed, in an elevator fire in Chicago this very thing was developed. The loss was finally settled on the basis that the salvage should go to each holder of warehouse certificates in proportion as the amount of his grain was to the whole amount of grain at elevator at the time of fire. As to the policies covering on elevator charges they were only made to pay the deficit in the salvage so as to make up the charges.—*Argus*.

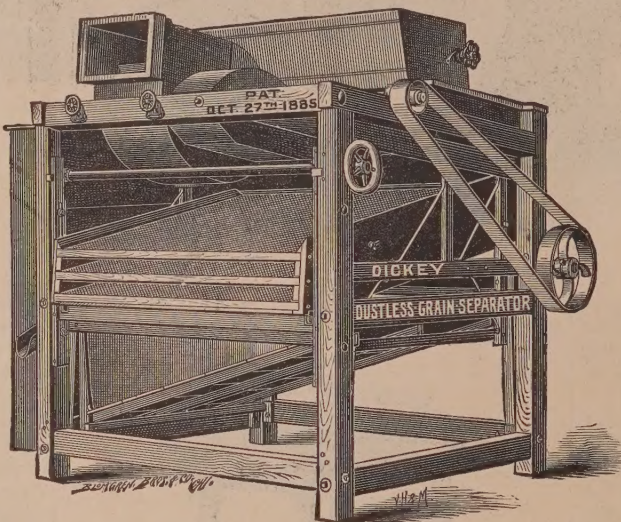
ELEVATOR TROUBLES AT MILWAUKEE.

An old member of the Milwaukee Chamber of Commerce said: "The grain trade of this city has been greatly injured by the arbitrary and uncalled-for action of the proprietors of the Northwestern system of elevators in this city, and it is high time the Chamber of Commerce took hold of the matter and with a firm hand corrected these irregularities. There are," he continued, "now some 8,000,000 bushels of wheat stored in these elevators, the receipts for which, through the refusal of the proprietors to reduce the storage rates to meet the rates charged by the Chicago, Milwaukee & St. Paul Railroad and all other public elevators, our Chamber of Commerce was obliged to declare irregular and not deliverable on contracts. These receipts, so declared irregular, are held by parties who are unable to sell, dispose of, or negotiate them in any shape; consequently, it causes great distrust among people who have heretofore traded millions in our market and has driven them to seek investment elsewhere. It seems the time has come when this board should, without another hour's delay, take hold of this matter and correct what is plainly an injustice to our entire business interests. If these elevator proprietors will not meet the current rates of storage, let the Chamber of Commerce call

upon the Northwestern Railroad Company to furnish our city with elevator room and take care of its receipts of grain and place men at the head of the same that will meet the business men and try and do what is best for the interest of all concerned. If this can not be accomplished, we would better immediately apply to the Legislature and have the public elevator proprietors placed under a law that will protect the interest of persons whose property is in their care. The elevator companies are well paid to protect the property entrusted to their keeping, and they should be compelled to do so. If they will not comply with the requirements of the rules and laws, the Chamber of Commerce should declare all their receipts irregular and refuse to list them on the exchange."

THE A. P. DICKEY MFG. CO.'S DUSTLESS SEPARATOR.

At the works of the A. P. Dickey Mfg. Co. at Racine, Wis., business under the new management is coming to the front in a manner highly gratifying to those concerned. The company succeed the firm of Dickey & Pease (Mr. Pease retiring), and write us that they will manufacture, among their other grain separators, the "Giant Dustless." They inform us that the real inventor, an employee of the shop, has greatly improved on the original machine, and has, at the expense of the present management, perfected his original idea of a dustless



THE A. P. DICKEY MFG. CO.'S DUSTLESS SEPARATOR.

separator, which is represented in the accompanying illustration. This machine is fully covered by patents controlled by this concern alone. They are confident that this latest idea will prove the most perfect dustless separator yet invented and a marvel of Yankee ingenuity, having a capacity of from 700 to 1,500 bushels per hour, grading and cleaning in one separation, both of which operations are performed, with 20 per cent. less power than is required by less perfect machines. The weight and working machinery is evenly distributed between the parts or anchors, and is said to be much more simple and durable. The company will be pleased to hear from all interested parties.

HOW GRAIN IS HANDLED AT PEORIA.

In the infancy of the trade each receiver took his own sample from the car he proposed to sell. As the volume of business increased, this was found to be laborious, and sometimes unsatisfactory from the want of sufficient time and lack of proper tools with which to secure a fair sample. This led to the appointment of samplers, working under the authority of the Board of Trade. All they did, however, was to bring to the receiver a fair sample of the grain found in each car, in which was placed a ticket, signed by the sampler, certifying that the sample was a fair average of the car. It was not long until it was found that something more was necessary. As storage facilities increased, it was manifest that some arrangement must be made by which quantities of grain could be bulked together belonging to different owners, as it was readily seen to be impossible to preserve the identity of each car load, if any considerable amount was to be stored. Another reason why sampling alone was not

sufficient to satisfy the demands of business, was that Eastern parties had no means of knowing what kind of grain would be shipped on an order, unless a sample was sent. This involved considerable delay, and as the sample could not be always exactly matched, disputes and misunderstandings were unavoidable. In view of these things, it was determined to adopt a system of grading also. This proved a happy solution of a troublesome question, and at once gave the trade a new impetus. Grades were adopted for all varieties of grain. The samplers continue to sample each car, taking therefrom about a quart of grain, which is put in a small sack, with a ticket giving the name of the receiver, the number of the car, the railroad by which it arrived, the grade of the grain it contains, the date on which the sample was taken, and the name of the sampler. All of which he reports to the secretary of the Board of Trade, who makes it a matter of permanent record. Thus we have a combination of the sampling and grading systems, which fully meets the demands of both buyers and sellers. If, on seeing the sample, the receiver is not satisfied with the grade affixed to it, he can appeal to the chief sampler and call for a regrading of the car, and if he cannot get such a grade as he thinks the sample justifies, he can appeal to the sampling committee, which is appointed annually from the members of the Board of Trade. While this controversy is going on the grain is held on the railroad track, and not unloaded until the matter is settled. In

markets where the inspection system prevails, an error in inspection is seldom rectified, as no sample is taken, and unless the receiver employs a private inspector to look after his interests, he has no knowledge that a mistake has occurred until a complaint comes from the shipper. Then it is too late—the grain has been unloaded, its identity lost, and nothing remains but the record of the inspector, and there is no going behind his official certificate. The superiority of the Peoria system is seen at a glance. There are degrees of difference in samples of the same grade, such as size, color, plumpness of berry, cleanliness, etc. One consumer may require No. 2 mixed corn, for instance, in which the white colored predominates, while another wants as little white as possible. Under the Peoria system he can get just what he wants, as the samples are shown on 'Change, and the buyer sees what he will get.

Let us follow a sample just taken from a car. It is placed in a sack with a ticket, as already described and taken to the Exchange room and delivered to the party to whom the car is consigned. This sample is then poured out in a pan and placed on a table, where it can be examined by the purchaser. A sale having been made, the price is marked on the ticket with which the sample is delivered to the buyer, who designates the elevator or industry to which he desires the car sent. We will suppose a car is ordered to an elevator. As soon as received there it is unloaded, weighed, and a report made to the secretary of the Board of Trade, giving the weight, grade, number and initial of the car, and name of the owner. A receipt is also made out to the elevator company, and given to the party for whom the grain was sampled. This receipt is examined by the secretary of the Board, compared with the report made by the weighmaster, and if found to correspond the receipt is stamped as registered, and thus becomes negotiable and a good delivery on contracts between members. The seller attaches this receipt to his bill, presents the same to the buyer, receives his pay, and the transaction is complete. The holder of the receipt then makes such disposition of it as suits his purposes. If he desires to ship the grain the receipt is canceled and returned to the elevator, when the grain is loaded as ordered. All possible safeguards are thus thrown around the trade that are provided by state inspection and warehouse laws, and many of its evils are avoided. Those in other grain centers competitive with Peoria have at various times sought to have the state system extended here, as they have felt that the superiority of our method gave us advantages they could not meet. Happily, thus far their efforts to cripple us in this manner have signally failed; and will doubtless be equally futile in the future.—*Peoria Transcript*.

Chicago elevators and vessels contained last Saturday evening 13,247,897 bushels of wheat, 5,636,809 bushels of corn, 979,097 bushels of oats, 153,339 bushels of rye, and 294,611 bushels of barley; total, 20,311,753 bushels of all kinds of grain, against 17,985,916 bushels a year ago.

A GAS ENGINE WITHOUT GAS.

There are thousands of small establishments throughout the length and breadth of the country which require but very little power, and yet must have a motor of some kind. Very often it is entirely unnecessary to have power furnished except at intervals; and naturally the ordinary method of using engine and boiler often proves an expensive necessity in such cases. Yet, power must be used; and in scores of such cases the gas engine, with its simplicity, its requiring no engineer, no fires, and, above all, the shutting off of expense for every minute the engine is not in operation, has proved the solution of the question of cheap power.

The engine illustrated on this page is offered to the public as no new thing, but as one that is not only the result of many years' study and experience, but is also a machine that has proved in practical operation in scores of cases, a thoroughly practical machine which solves the problem of cheap, small power. Elevator men are especially interested in such an engine, especially when it is considered that the use of gas measured by the gas company's eccentric meter is not necessary to propel this engine. Liquid hydrocarbon has been substituted in cases where gas is unobtainable or is undesirable; and the cost compared with gas is on a basis of only 65 cents per 1,000 cubic feet, which is cheaper than gas is sold anywhere in the United States. But even at the ordinary price of gas the gas engine is a good investment for small or intermittent powers.

The Charter Gas Engine is offered to the public with many points to recommend it. It has no gear wheels, no boiler, needs no engineer; no danger, no pumps, no gauges to watch, and entails no extra insurance. It thus combines the elements of simplicity, economy, safety and neatness. In comparison with other gas engines, it is claimed to weigh less, to give more power, to make less noise, require less attention and floor space, and to have fewer parts than any other gas engine.

An examination of the engine will show that by the ingenuity of the inventor, a somewhat complex idea has been reduced to very simple, mechanical terms; for the Charter is not open to the objection of complexity. The moving parts have been reduced to a minimum, and the engine is made as compact as possible, so that it is almost impossible for it to get out of order. It consists essentially of a power and a supply cylinder (the latter being placed under the power cylinder), both being supplied with suitable pistons, which are operated by one crank. The engine gives an impulse at every revolution, and the governing device is simple and effective, using gas only in proportion to the power required. Unlike other gas engines, the largest sizes of the Charter have only one power cylinder, instead of being two engines on one base, as in other machines. The ignition valve is very simple, being cylindrical in form, and requiring no springs or screws to keep it in position, thus avoiding friction, and requiring no adjustment before or after starting the engine. Only one light is used, and that requires no adjustment. The ignition valve can be taken out, cleaned, and replaced in a couple of minutes.

We might enlarge on the other good features claimed for the "Charter," but may summarize the claims that, as compared with other gas engines, it is claimed to be the most perfect; while, as compared with steam, the saving is claimed to be very great in that the expense for running stops when the engine stops, that it is ready for running at any moment, that it requires no engineer, no boilers, feed pumps, gauges, fire, steam, coal, and entails no ashes or smoke. In fact, for powers requiring from 2 to 25-horse power, the Charter claimed to be the ideal motor.

The manufacturers of the "Charter" are the well-known WILLIAMS & ORTON MFG. Co., 400 Locust street, Sterling, Ill., who will supply any information respecting this engine which our readers may desire. If you wish any further particulars, drop them a line, not forgetting the number of the street, and they will take pleasure in answering all inquiries.

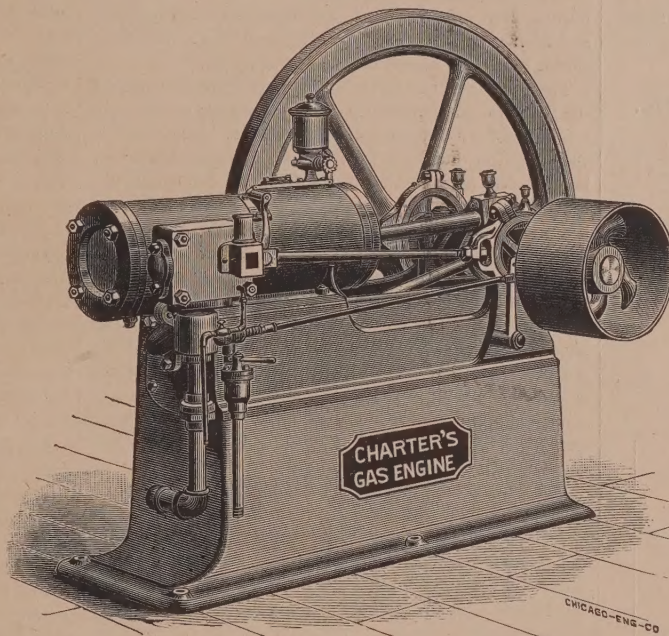
The largest corn sheller in the world is in use at Leaveworth. It was invented by a Kansas citizen.

TRADE IN THE SOUTHWEST.

Special Correspondence AMERICAN ELEVATOR AND GRAIN TRADE.

KANSAS CITY, Mo., Jan. 11, 1887.—Business has been dull all through this section of the country during the past month. This was to be expected. The grain men are noted for being the best observers of all holidays, and as this year there was nothing to call for particularly active attention on their part, they managed to have a good time of it, untrammelled by the demands of trade.

The past year has not withal been a successful one with elevator men. Their storehouses have been left almost desolate the greater part of the time, and it is only by a scratch that they have managed to pay expenses, and this was done only by the lopping off of all extra expenses. It is thought that there are at present fewer men engaged in the elevator business at this point than for three years past. The cause for this was that the trade simply would not stand it. Avenues of expense have been slashed right and left, until at present it is not easy to determine where greater economy could have been exercised. As a rule the various elevators here are well kept up, and amply ready to handle all the business that may come into their hands. While it is not thought that the crop of 1887 will stretch the capacity to any great extent, yet it



CHARTER'S GAS ENGINE.

is believed that those elevators that have been on the losing side the past year will come out winners at the close of the coming season. Of course this is a pleasant way to look at it, and the reader would rightly claim that a man who went into the year without the hope of being a gainer in the end would approximate a fool.

The fact of the matter is that the activity of the past year has taught the elevator men an important lesson. They know that they can never hope to build up a lasting business that is not founded on a basis as broad as that of other elevators in the country. It has long been the complaint that the elevator men here were the Board of Trade, and that they had it all to themselves to turn out on the market any grade of grain that they might see fit. This they have done in times past to their own hurt. To be sure there has more or less of a new leaf been turned over the past year, but the Augean stables have not been cleaned sufficiently yet. It will take at least another year before country millers and buyers of all classes will have the confidence they once reposed in the market here.

The commission men have to learn that the elevator men shall not run the Board of Trade. It is a fact that the average elevator man gets indignant when he is assured that the country dealer is suspicious of his manner of mixing. It will not do to say that the same practice holds at Chicago only to a worse extent. The only winning card is a thoroughly clean system, wherein the one who consigns his grain to this market may be sure that the sales of the same will show up in the same grade deposited. It will not do to think that a high grade of No. 3 wheat can be sold out of the elevator as one that will barely pass the No. 2 grade. The better grade of wheat

that is sent out from here the more the city will be advertised. One of the leading elevator men declares that the charges against the elevator system here are baseless. That the grades sent out are just as high as those deposited in the storehouses. This will not stand the test. How is it that while there are constant complaints of the inferiority of Kansas City wheat, there are no compliments noted of the fine quality of the output? It will not do to say it is all imagination. Where there is so much smoke there must be a well-developed fire. Let the fire be put out, and that as speedily as possible.

To be sure there have been more millers buying here in proportion to the grain handled than was the case for several previous years. This is owing to the fact that the elevator men get somewhat stirred up when complaints are hurled into their midst from every quarter of the compass, and are tempted to desist from their old style of working the countryman. It is next to impossible, however, for them to keep up this plan but for a few weeks, when they must relapse back into the old state of giving as little for the money as possible. It is not pleasant to find fault, but it is certain as that night follows darkness that the better class of commission men who are not connected with the elevators, have no words of praise for these institutions, which they are fain to believe are robbing them of the life-blood of the business in this section.

It is these men who will be glad that the attention of the trade has been called to the existing status of affairs. If inspections are thoroughly overhauled, and the elevators will turn over the proverbial New Year's leaf, the elevator men are assured that in these letters prompt credit will be given. But until then their acts will only prove a boomerang to kill their own interests—the goose that is trying its best to lay golden eggs for the conscientious dealers about here.

During the past year there were 4,853 cars of wheat inspected at this point as compared to 7,127 for the previous year. The total receipts of wheat by railroads during the year was 2,885,632 bushels as compared to 4,763,844 bushels for 1885. Of the receipts for 1886 the elevators handled 2,452,856 bushels. Thus it will be seen that the elevators did not handle within 425,000 bushels of the total receipts. This is not as it should have been. In corn the receipts for the past year show up even worse comparatively than wheat. There were but 2,885,632 bushels received as compared to 7,894,584 bushels for 1885. This is a great falling off. Nevertheless it is greater than the falling off in the crop of the latter article. The reason for this is that farmers throughout the neighboring states kept a good portion of the crop at home in order to feed their

cattle. It is not believed, as is stated by some, that the remainder will eventually find its way to this market. The increased population of Kansas and Missouri has had the effect of materially adding to the consumption at home, and there is less corn in the states above mentioned than has been the case for several years at this time. This is what is held by those who have traveled most through the states, and may be relied on as correct.

The highest average price for any one month, so far as wheat is concerned, was during the month of February, when No. 2 red sold at 71.46 cents per bushel. The lowest price was had four months later, when 56.88 was the average value. The highest price was paid on Feb. 13—73½ cents—and the lowest on June 16—50 cents. Corn, on the other hand, reached high-water mark during October, when the average price was 33.48 cents, and the lowest during June—21.96 cents. The highest price of the year for No. 2 corn was had on July 29—39¼ cents, and the lowest on June 19—24¼ cents.

So far as oats, rye and barley were concerned, the elevators did not have a busy time of it. This had never been a center for this class of cereals. As to oats, the bulk of the crop in Kansas finds its way to the territories to the far West, and little of it comes here, farther than is necessary for home use. The prices paid for the latter are more generous than can be obtained in the East, and there is no doubt but that this will never be a very extensive distributing point for this cereal. The prices of this grain have followed closely in the wake of those for corn.

During the past month 209,428 bushels of wheat received at this point. This is about 11,000 bushels less than during the corresponding month last year. So far

during 1887 there have been 33,044 bushels taken in by the elevators here, as compared to but 13,872 for the same time last year. The new year certainly starts out well, so far as this cereal is concerned. At present there are in store 316,073 bushels. The receipts of corn the past four weeks have been 191,128 bushels, as compared to 379,785 bushels for the same weeks last year—quite a marked falling off. This year, up to date, there have been 51,137 bushels received, as compared to 45,763 bushels for the same time last year. This is also a slight increase. There are 355,895 bushels in store here now.

Prices of No. 2 red winter wheat have advanced five cents during the past four weeks—from 65 to 70 cents. No. 2 soft does not show so great an increase, being but four cents—from 71½ to 75½ cents. The highest price paid for this grade of wheat during the past four weeks was 76¾ cents. No. 2 corn begun the month at 30½, and closed at the same figure. The highest point reached was 31½ cents. As to prices, corn has been quite regular all along.

As to winter wheat, the latest reports from all sections of Kansas differ materially. The southern sections are said to appear well, with the promise of bountiful yields, while throughout the more northern sections the reverse is true. The late snow storms have been a good thing, and the thick mantle of snow distributed over the state, it is said, promises millions for the crop of 1887. The same is true, to a great extent, as regards Missouri. It may be predicted a little less than an average crop will be had.

CHICAGO GRAIN INSPECTION.

Below we give some extracts of the report of J. Bird Price, chief inspector at Chicago, to the railroad and warehouse commission:

The accompanying tabulated statements, compiled from the books of the office, present in a concise form the results of the year's work, but there are some matters not included in them to which I deem it proper to refer in this report, and some suggestions for the improvement of our system, which, I hope, a somewhat extended experience in the department will warrant me in making:

Comparative statement of inspection from 1879 to 1886, inclusive:

YEAR	Winter wheat, bu.	Spring wheat, bu.	Corn, bu.	Oats, bu.	Rye, bu.	Barley, bu.	Total bu.	Combined totals of "in" and "out"
1879.	3,933,686	22,593,168	43,809,075	3,488,043	1,717,295	2,297,917	77,749,176	108,459,238
1880.	3,120,240	19,653,948	75,662,410	3,492,124	939,740	1,275,293	106,154,468	212,050,384
1881.	1,719,720	10,673,948	30,285,410	2,410,941	705,941	1,076,583	86,354,804	210,694,497
1882.	9,423,565	14,644,783	38,137,298	6,020,924	1,001,137	1,290,381	62,973,360	108,668,139
1883.	3,201,303	13,834,351	52,337,148	6,043,397	1,434,086	1,744,086	73,780,778	211,210,444
1884.	4,441,065	12,996,124	52,337,148	6,043,397	2,587,022	1,290,381	85,850,778	177,358,882
1885.	1,301,065	7,713,030	31,001,351	3,063,624	738,239	296,790	45,779,444	157,419,444
1886.	2,048,366	10,500,918	41,045,630	4,763,724	683,174	1,032,913	61,249,305	192,778,797

As at present constituted the jurisdiction of the department is confined to warehouses of class "A" within the corporate limits of the city of Chicago. The inspection of grain going into the warehouses is all that was

contemplated in the establishment of the system, and the theory remains the same to-day, although in practice a large portion of it is diverted to other channels after the inspection is made. Originally the work of inspection was done in the elevator yards, but lack of room forced the railroad companies to establish inspection yards at points remote from the elevators, and in two instances outside the limits of the city. Inspection stations are established on ten of the railroads bringing grain to Chicago and one on the canal.

There are also "out inspection" stations at each of the twenty-six elevators within the jurisdiction of the department. The daily reports from each of these stations are gathered up by a messenger, who sets out upon his round of twenty-five miles between 3 and 4 o'clock in the morning, and reaches the office by the time it is open for business.

But it must not be assumed that the increase in the extent of the department (evident to every one familiar with its history) has been accompanied by a corresponding increase of its business. In 1879, for instance, 236,163 cars of grain were received, and a total inspection made of 193,459,233 bushels. This was brought in by eight railroads and stored in nineteen elevators, requiring nine track inspectors (including one on the canal) and nineteen house inspectors for a full force. In 1886 there were 35,000 cars less received, and the total inspection was almost a million bushels short of 1879, but it was handled by ten railroads and twenty-six elevators, and required for a full force eleven track and twenty-six house inspectors.

The entire cost of inspection (including the expenses of the Registration Department and Committee of Appeals) was in 1879 fifty-hundredths of a mill per bushel, and in 1886 fifty-four-hundredths of a mill. A question which is constantly presented by the rapid extension of the system of railways centering in this city, and the lack of sufficient storage capacity for the grain grown in territory properly tributary to Chicago, is that of enlarged jurisdiction of the department. Under the present law our inspectors cannot officially take charge of an elevator lying outside of the corporate limits of the city, nor can official certificates be issued for grain shipped for them, nor the protection of the registration system be thrown around them, no matter how intimately they may be connected with the interests of the city. There is a large territory within the limits of Cook county, which, from the standpoint of business interests and commercial relations, is more thoroughly a part of Chicago than much of the area encompassed by the present city limits; and in my opinion, the legal restriction which denies the benefits and protection of the inspection and registration system to warehouses located in this territory is a bar to the natural and free development of our grain interests.

With the Belt Railroad running entirely around the city, prepared to transfer loaded grain cars at a nominal cost to any point upon its line, and reaching points where land is comparatively cheap and water privileges as great, almost, as in our own harbor, there seems no reason why the system should not be extended to include the entire county, and thus encourage the building of elevators on less valuable ground.

In the fifteen years which have passed since the warehouse law was enacted, the city has outgrown the law, and in my opinion such a change as I have indicated would tend to a lessening of terminal changes and an increase of storage capacity which could not fail to give a very perceptible impulse to the grain trade of the city. In this connection I believe it will be very generally admitted that the elevator capacity of the city is, at present, insufficient to accommodate the amount of grain which naturally seeks its market here, and that with properly increased capacity and charges placed at a reasonable, but still profitable, rate, a large amount of hard wheat from Minnesota and Dakota, which now seeks a market through other channels, would be handled here, and still a greater proportion of the grain now sold by sample and transferred would be sent to store, and the average of our grades in store thereby be greatly improved.

Gov. McGill, of Minnesota, has appointed as Railroad and Warehouse Directors, Horace Austin, John L. Gibbs, and George L. Becker. Mr. Becker is a member of the present Board.

F. A. Hill, of this city, commonly known as "Plunger" Hill, has brought suit to recover \$50,000 for alleged slander, against Frank J. Kennett. He charges that at a meeting of his creditors Kennett accused him of mutilating his books and making false entries.



W. R. Eynon, Cleveland, Ohio, manufacturer of machine tools, is much pleased with the way trade is opening up.

The firm of T. C. Snyder & Co., of Canton, Ohio, has been incorporated and is now known as The Canton Iron Roofing Co.

The Robert Atchison Perforated Metal Co., of this city, recently had an inquiry for their goods from Lisbon, the capital of Portugal.

W. D. Allen, formerly of the firm of E. B. Preston & Co., of this city, manufacturers of leather belting, has formed a new firm under the style of W. D. Allen & Co.

The firm of Williams, Rinehart & Co., of St. Louis, was dissolved on Dec. 31; M. T. Williams continues the business, assuming all indebtedness, and closing up all old accounts.

The Foos Manufacturing Company, Springfield, Ohio, write as follows: "Our trade on our Scientific Grinding Mills and Portable Forges has been far in excess of any season we have had since entering the business, and the outlook seems very promising, especially as to our trade in grinding mills."

In regard to the fire in their foundry, Messrs. Edw. P. Allis & Co., of Milwaukee, have issued the following circular letter to their patrons: "Milwaukee, Jan. 8, 1887—To our Patrons:—The loss of a portion of our works by fire night before last will not seriously disturb our business. The fire was confined exclusively to the foundry department, leaving the entire machinery plant intact and uninjured. We have a large stock of castings on hand and have already arranged to be supplied from other shops with all we need. We shall immediately rebuild larger and better, with more facilities than formerly, and meantime our business will proceed without interruption. Soliciting your continued and uninterrupted patronage, we are yours very truly, Edw. P. Allis & Co."

English Bros. Machinery and Supply Co., of Kansas City, Mo., write that trade with them the past thirty days in power outfitting has been quite brisk. Some of their sales were as follows: Geo. Fowler, Kansas City, 15-horse engine; B. F. Blake & Co., Pleasanton, Kan., for elevator at Hume, 25-horse power engine; Clarence Taylor, Chapman, Kan., 15-horse power engine and boiler outfit; Brumner, Lodge & Co., Erie, Kan., 40-horse power engine and boiler; L. J. Lemore, Nickerson, Kan., 25-horse power engine and boiler outfit; E. D. Hornbrook, Kansas City, 30-horse power boiler; South Bend Pump Co., South Bend, Ind., 40-horse power automatic engine; Fleming & Potter, Ness City, Kan., 12-horse power engine and boiler; C. W. Sarbaugh, Wakenda, Mo., 40-horse power engine and boiler; Bullor & Baker, Abilene, Kan., 20-horse power engine and boiler; Woolf Bros., Kansas City, 40-horse power Goubert Feed Water Heater; Armour Packing Co., Kansas City, 500-horse power Goubert Heater.

The Cambridge Roofing Company, Cambridge, Ohio, report a good year's business, notwithstanding the set-back given to all business by the strikes, which materially affected building enterprises all over the country. They write: "Our specialty, Crowl's patent standing seam roofing, steadily gains favor with the building public and mechanics. This is truly the 'age of steel,' and we are keeping pace with it, and introducing steel sheet for roofing, which is just coming into use. We manufacture four styles roofing and siding, viz., Crowl's patent, plain rolled, corrugated and crimped edge. We use the best material possible, and spare no pains to make all our goods first-class. Our material consists of charcoal iron, steel sheet, calaminated and galvanized iron. With no strikes, the year 1887 will undoubtedly be one of prosperity. The iron market is firm, and the recent advance ably maintains itself, which indicates a healthy state. We are preparing to meet all demands for our line of goods. Our new factory covers an area of 14,000 square feet. The main building is 40x80 feet, with a wing of 60x60 feet; one separate building 40x75 feet, and a storehouse of 40x80. With first-class machinery and plenty of power we are enabled to keep pace with our ever increasing business."

COMMUNICATED

[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interests of the trade at large, or any branch of it.]

A GOOD LOAD.

Editor American Elevator and Grain Trade:—The Jonesboro Elevator, situated on the Mobile & Ohio Railroad, 36 miles north of Cairo, has in store at this date 55,000 bushels of choice No. 2 red winter wheat, which is owned by D. R. Francis, of St. Louis, and Breedlove Smith, of New Orleans.

CHAS. F. WILLARD, Agent.

Jonesboro, Ill., Dec. 29, 1886.

A STILL HEAVIER LOAD.

Editor American Elevator and Grain Trade:—Inclosed please find one dollar, for which send me the AMERICAN ELEVATOR AND GRAIN TRADE for one year. I had a load of wheat hauled to me a few days ago containing 150 bushels. The grain, wagon and driver made a load of 10,500 pounds. This was hauled five miles by one team of horses. How is that for a load, anyhow?

Yours truly,
Arthur, Dak.

W. H. COMRIE.

A SYSTEM OF GREAT ELEVATORS.

Editor American Elevator and Grain Trade:—Messrs. J. T. Moulton & Son are now building a 750,000-bushel crib in addition to the present plant of the St. Anthony Elevator Co. (W. H. Dunwoody manager), making a total capacity of 3,650,000 bushels, all operated from one machinery house. As soon as the system is completed, I will send you a photograph of the buildings and of our track system, which we think is ahead of any in this country. The loaded cars from storage yard (capacity 1,200) come into the elevator on down grade 7-10 to 100 feet, and leave the elevator empty on same grade, thus doing away entirely with the engine switching gang.

Yours,
GEO. D. MOULTON.
No. 43 Chamber of Commerce, Minneapolis, Minn.

THE TRADE AT PHILADELPHIA.

PHILADELPHIA, Jan. 8, 1887.

Editor American Elevator and Grain Trade:—The past year has been a most unusual and a most prosperous one on the whole in the world of business. The great reaction which began during the summer, from the long-continued period of "dull times," culminated in September and October in a general business revival, covering every trade and industry in the United States, and that revival seems to have come to stay. The prospects for 1887 are very bright. The great extension of our railroad systems seems destined to go on at a wonderful rate, for the country is growing so rapidly that transportation facilities can hardly keep up with it. The activity in commercial and business circles bids fair to continue and increase; and our farmers all over the country see no reason to expect less favorable harvests than the handsome one of 1886. The "New Year" opens with a very healthy state of affairs, commercially and financially. The market for railroad stocks and wheat are important guides with respect to public sentiment, and the fact that the new year has been inaugurated with active trading and values tending upward, is a feature of peculiar significance at the beginning of a new campaign. The movement of general trade still remains quiet, and it is scarcely probable that any important change in the condition of affairs will be developed during the next week or ten days, as some time will be occupied in settling up the accounts of the old year, and outlining the prospective operations of the new; but there are few departments of business activity in which the future is not bright with promise, and the general expectation is that 1887 will prove a year of prosperity to the commercial and industrial interests of the country. There has been no overproduction or overtrading to be liquidated, the consumption of all staple commodities is

steadily increasing, the easy condition of the money market indicates the substantial and healthy basis of the financial situation, and it is several years since the industries of the country have been so actively and profitably employed as is the case at present.

The grain markets have lacked the strong foreign support that was the basis of strength during and prior to the holidays, and although the interior movement of wheat has not been large, it has run a little ahead of that of the previous month, and there has been a liberal country movement of corn. These features of the situation have dampened the ardor of speculation, and the bears have taken advantage of their opportunity to depress prices. In this undertaking they have had the aid of more liberal selling by parties who had "gone long" of wheat at lower prices, and who have regarded this interval of comparative dullness as a fitting time to realize profits. Prices this week have consequently declined 1 to 1½ cents per bushel in wheat and ½ to 1 cent per bushel in corn. There is not much shipping demand for corn, and new business in wheat is comparatively small, but clearances of the latter are liberal, and from the amount of business previously reported under contract, are likely to continue large for some weeks to come.

The stocks of wheat and flour in the United Kingdom on Dec. 31, 1885, were 23,864,064 bushels, and on passage 14,296,000. Now they are 14,362,060 and 22,480,000 respectively, making 38,160,064 and 36,840,000 totals respectively, against 32,572,364 in 1884, 45,428,592 in 1883, and 36,709,848 in 1882. Walker's circular makes wheat on passage from India 3,699,000 bushels, against 5,192,000 same time a year ago Dec. 18. Total Indian exports, 1886, 41,776,000.

The New Zealand Loan and Mercantile Assurance Co., of Melbourne, in a circular on the crop prospects of Australia, says: The recent hot weather, though it has had a forcing influence on growing crops, has not been favorable to filling out wheat heads, and in some districts in the north the accounts to hand of the wheat on the plains are far from favorable. On irrigated lands the yield will be large, but the average computed to the latter is small. The difference between four bushels to the acre on dry land and thirty-five and forty on irrigated indicates what can be done. Some symptoms of rust have appeared, but they are mainly confined to poor soil or overworked land. Grasshoppers are numerous, but the crops are too far advanced, as a rule, to suffer much from this infliction. From South Australia reports promise a six-bushel average. The Queensland wheat crop is a complete failure, the rust having destroyed all hopes of a yield, and the farmers are now cutting their crops for hay. The decline in the market value of wheat for the past year, and in some measure for the two preceding ones, is a subject in which not only the grain trade, millers, and farmers, but the whole working and trading community, are vitally interested. The *Milling World* gives some interesting tables relative to this matter, from which it appears that whereas the value of a bushel of wheat in 1881, as reported by the Bureau of Agriculture, was \$1.19½, in 1884 it had fallen to 64½ cents, rallying to 77 cents in 1885, but dropping again to 65 cents in 1886. The effect of this fluctuation was that while in 1881 the crop of 380,000,000 bushels was equivalent to \$453,000,000, in 1886 a crop of 457,000,000 bushels amounted to only \$297,000,000. The statistics in regard to corn and oats are of a very similar nature; and taking all kinds of grain into account, it is shown that a total product of 1,991,000,000 bushels in 1881 was worth \$1,405,000,000, while the much larger product of 2,725,000,000 bushels in 1886 was worth only \$941,000,000. The prices given are in every case the home value; and it is further mentioned that the figures for 1886 are estimated by competent authority, those for the preceding years being official. This is not an encouraging picture of the state of our great agricultural industry. Where to look for the cause of this extraordinary shrinkage of values is the practical question involved, and many solutions of the mystery have been offered. That the cause to which the *Chicago Daily Business* attributes the decline in wheat is not the real one in any broad or comprehensive sense, I am very confident. That paper evidently considers the "bucket shops" responsible for the whole difficulty. I have no disposition whatever to defend the "bucket shops," or any other form or means of speculation, great or small. But a theory which ascribes to these speculators the power of permanently depressing the price of breadstuffs in the European markets is not a sound one. It merely scratches the surface of the question. The "bucket shop" business and all the grades and shapes of speculation are only incidental features of the

case. The reason why Europe has refused for the past three years to pay the old prices for American wheat is that new sources of supply have been opened elsewhere, and American wheat-growers cannot compel the European purchaser to pay them more than the same article can be bought for in other markets. Artificial restrictions upon trade between this country and Europe have a two-fold effect. They lead to the opening up of new fields of labor and investment in Asia, Africa, Australia, and South America, with which we have hereafter to compete; and they enhance the cost of living in this country, so that the farmer cannot afford to sell his wheat at a price which, under normal conditions, would yield him a margin of profit. It is not worth while to lay the blame on what is only a superficial outgrowth, however pernicious it may be, and at the same time ignore the real underlying cause.

Baltimore is pulling the export trade in flour away from Philadelphia and New York. The shipments for five months ending with November were 901,172 barrels, against 243,377 barrels during the corresponding months in 1885. The bulk of the flour is carried to Baltimore over the lines of the Pennsylvania Railroad Company.

One of the most valuable works relating to the traffic in grain which has lately appeared is "The Construction and Equipment of Grain Magazines or Elevators," published by John Heywood, 11 Paternoster Building, London. The author of the book is G. Luther, a milling engineer of Brunswick, Germany, and it has been translated for English and American readers. The book contains 116 wood-cuts, fourteen lithographic plates, and twelve photographs, and the typographical execution, quality of paper, and clearness of engravings, are of admirable character. The information conveyed is valuable and practical, and will be of large utility in helping to solve the problem of the storage, preservation, and transportation of grain on the most economical system—a problem which is every year increasing in magnitude and difficulty. The published price of the book is seven shillings and sixpence.

The exports of corn from this port during the past year show an immense decline from 6,062,430 bushels in 1885 to 1,910,228 bushels in 1886. The wheat shipments, on the other hand, show an increase from 3,377,691 bushels in 1885 to 5,852,748 bushels in 1886. The steamships Lord Clive, Orsino, and Amy Dora carried away the last week of the year 193,317 bushels of wheat. The shipments of oats last year were almost nothing.

The market for grain freights is very firm, under a steady demand and moderate offerings of desirable tonnage. I quote steamers for prompt loading, Cork for orders and direct Continent at 4s. Berth room in regular line steamers is pretty well sold up, and rates are firm at 5½d. for Liverpool and Glasgow, and 5½d. for Antwerp.

J. C. D.

OMAHA'S GRAIN TRADE.

Nebraska has not only maintained its reputation as a great corn growing state during 1886, but the large increase of its agricultural population has made a corresponding extension of the volume of receipts and shipments of corn at Omaha. Never before in the history of the state has there been a larger acreage devoted to the smaller cereals, wheat, oats, and rye; while barley and flax have been successfully and largely raised. No important industry has grown more rapidly and extensively than that city's grain business. New railroads have opened up new supply territory, and poor harvests in other states have created many additional demand markets. Hardly a railroad station throughout the whole state is without an elevator and granary, the majority of which send their gathered grain to Omaha for Eastern distribution. The Willow Springs Distillery has furnished a cash market for grain during the entire year, no matter what the condition of the general market. During 1886 this company purchased 500,000 bushels of corn, rye, and barley. The three leading breweries, Metz Bros., Fred Krug, and Storz & Iler, purchased over 200,000 bushels of barley in 1886. The local flour and feed mills used 225,000 bushels of grain, and at the lowest estimate the sales to the street car company, stock yards, and on the street, amounted to 2,000,000 bushels last year.

Himebaugh & Merriam, proprietors of the "Union" elevators in Omaha, report a very active trade during 1886. They employ forty men, and the capacity of their elevators is 800,000 bushels. During 1886 this firm handled 5,374,000 bushels of grain, divided as follows: Corn, 4,000,000 bushels; wheat, 650,000; oats, 600,000; barley, 62,000; rye 37,000; flax, 25,000.



Issued on Dec. 14, 1886.

BALING PRESS.—Harry Purrier, Gunnison, Col. (No model.) No. 354,517. Filed August 18, 1886.

CORN SHELLER.—Cyrus Roberts, Three Rivers, Mich. (No model.) No. 354,239. Filed January 29, 1886.

GRINDING MILL.—George Raymond and Albert Raymond, Chicago, Ill. (No model.) No. 354,228. Filed January 11, 1886.

GRINDING MILL.—Abram W. Stevens, Auburn, N. Y. (No model.) No. 354,445. Filed June 30, 1886.

METALLIC ROOFING PLATE.—George Patten, Clarks-ville, assignor to Moultrie Patten, Nashville, Tenn. (No model.) No. 354,484. Filed November 17, 1885.

AUTOMATIC GRAIN SCALE.—Daniel E. Kelley and Harvey D. Pratt, Gaylord, Kan. (No model.) No. 354,423. Filed April 6, 1886.

MAKING PERFORATED SCREENING PLATES.—Stephen H. Harrington, Chicago, Ill. (No model.) No. 354,412. Filed April 13, 1886.

Issued on Dec. 21, 1886.

HORSE POWER.—Charles Sandford, Fenelon Falls, Ont., Can., assignor of one-half to Ebenezer Sanford, same place. (No model.) No. 354,842. Filed February 13, 1886. Patented in Canada, April 15, 1884. No. 19,117.

GRAIN WEIGHING AND REGISTERING APPARATUS.—William H. Ernst, Chase, Kan. (No model.) No. 354,695. Filed March 26, 1886.

Issued on Dec. 28, 1886.

SPIRAL CONVEYOR.—Richard Birkholz, Milwaukee, Wis., assignor to Edward P. Allis, same place. (No model.) No. 355,124. Filed October 4, 1886.

CORN SHELLER.—Cyrus Roberts, Three Rivers, Mich. (No model.) No. 355,211. Filed January 29, 1886.

ELEVATOR FOR CORN SHELLERS.—Cyrus Roberts, Three Rivers, Mich. (No model.) No. 355,212. Filed January 29, 1886.

MALT DRIER.—Charles Brada, Chicago, Ill., assignor of one-half to Fritz Goetz, same place. (No model.) No. 355,128. Filed October 23, 1885.

AUTOMATIC GRAIN MEASURE.—Samuel E. Croshaw, Three Oaks, Mich. (No model.) No. 355,064. Filed March 24, 1886.

GRAIN WEIGHER.—George D. Baird, Peoria, Ill., assignor of two-thirds to Charles A. Taylor and William E. Littlefield, both of same place. (No model.) No. 355,248. Filed June 1, 1885.

AUTOMATIC GRAIN WEIGHING MACHINE. David D. Kuhlmann, Atchison, Kan., assignor to John Seaton, same place. (No model.) No. 354,911. Filed August 5, 1886.

Issued on Jan. 4, 1887.

DRIVE CHAIN.—Charles W. Miller, Columbus, Ohio, assignor of one-half to the Lechner Manufacturing Company, same place. (Model.) No. 355,549. Filed March 17, 1884. Serial No. 124,988.

DRIVE CHAIN.—William Morgan, Birmingham, England. (No model.) No. 355,620. Filed September 30, 1886. Serial No. 214,951. Patented in England, May 31, 1886. No. 7,234.

ELEVATOR BOOT.—James M. Dodge, Philadelphia, Pa., assignor to the Ewart Manufacturing Company, Chicago, Ill. (No model.) No. 355,514. Filed October 4, 1886. Serial No. 215,298.

MACHINE FOR CLEANING GRAIN.—Ralph McLain, Ontario, Ind. (No model.) No. 355,546. Filed March 5, 1886. Serial No. 194,138.

GRAIN SLO.—Lyman Smith, Kansas City, Mo. (No model.) No. 355,480. Filed May 27, 1886. Serial No. 203,453.

Issued on Jan. 11, 1887.

LINK DRIVING BELT.—Charles A. Schieren, Brooklyn, N. Y. (No model.) No. 355,890. Serial No. 217,340.

CAR STARTER.—Mark Potter, Syracuse, N. Y. (No model.) No. 355,712. Filed May 15, 1886. Serial No. 202,261.

COCKLE AND GRAIN SEPARATOR.—Granville F. Pres-

cott, Sleepy Eye, Minn. (No model.) No. 355,713. Filed March 22, 1886. Serial No. 196,189.

GRAIN DRIER.—Robert A. Burnett, Washington Court House, Ohio, assignor to Burnett Bros., same place. (No model.) No. 355,861. Filed March 19, 1886. Serial No. 195,811.

GRAIN METER AND REGISTER.—Francis H. Lacey, Atchison, Kan. (No model.) No. 355,828. Filed March 6, 1886. Serial No. 194,238.

AUTOMATIC CUT-OFF FOR GRAIN METERS.—George Marsh, Marshall, Mich. (No model.) No. 355,774. Filed April 29, 1886. Serial No. 200,594.

HOPPER FOR GRINDING MILLS.—James F. Winchell, Springfield, Ohio, assignor to the Foos Manufacturing Company, same place. (No model.) No. 355,740. Filed Feb. 1, 1886. Serial No. 190,531.

HORSE POWER.—Ira A. Jefferson, Salt Lake City, Utah. (No model.) No. 355,936. Filed March 11, 1886. Serial No. 194,849.

HORSE POWER.—Milton O. Roberts, Collegeville, Pa. (No model.) No. 325,719. Filed June 26, 1886. Serial No. 206,339.

METALLIC ROOFING.—Longley L. Sagendorph, Cincinnati, Ohio, assignor of one-half to Harlan P. Lloyd, same place. (No model.) No. 355,888. Filed Aug. 5, 1886. Serial No. 210,154.

METALLIC ROOFING.—Longley L. Sagendorph, Cincinnati, Ohio, assignor of one-half to Harlan P. Lloyd, same place. (No model.) No. 355,889. Serial No. 212,047.

WAGON OR STOCK SCALE.—Isaac W. Mason, Burnside, Ill. (No model.) No. 355,942. Filed April 10, 1886. Serial No. 198,495.

OUR DULUTH LETTER.

[Regular Correspondence.]

The wheat market during the latter part of December was fairly active, owing in great part to the feverish condition of the New York stock market, which was absorbing the attention of the financial and speculative world. Prices fluctuated widely and rapidly. From 85½c. for the May option, on the 14th inst., an advance of 2½c. was sustained, closing on the 31st ulto. at 88½c. The opening on Monday, of the new year, was ½c. of a cent higher than the close on the 31st, 88½c. There was a fair demand for wheat at this price, but the demand ceased, to all appearance, when it was learned that Ream and other large operators in Chicago were "slugging" it, and since then prices have declined, with small daily transactions, to 85½c. the close to-day, 11th inst.

The big carrying charges that were paid last month, 8½c. to May, do not find an equivalent this month. Carriers are offering to take the stuff at 6½c. without getting much wheat. Most of the wheat that is coming in at present is to fill January sales.

The Great Northern Elevator at West Superior, Wis., contrary to general expectations, especially of the insurance companies, has thus far worked well and has at present about 800,000 bushels in her, and has succeeded in clearing the tracks. The Manitoba Railroad has issued orders allowing 1,800 cars to be shipped to Duluth, which will fill the elevator to its utmost capacity.

The Lake Superior Elevator Co. are planking up one of their tracks in Elevator "B," and when that is done bins will be opened and room for about 120,000 bushels more can be made. The Union Improvement and Elevator Co. are doing the same thing at Elevator "E."

Messrs. Dunn & Thomson have obtained Cutler & Gilbert's warehouse and will put about 300,000 bushels in it, its utmost capacity.

At a meeting of the Lake Superior Elevator Co., held on the 17th inst., it was decided to build at once a receiving elevator of 1,500,000 capacity, heretofore mentioned. This elevator will be a consort of an elevator to be built later. Work on this consort, which will be fitted for about half the machinery of a regular elevator, for receiving wheat only, will begin at once, 17th inst., and be ready to receive wheat in 90 days.

The Duluth Roller Mill is now running and turning out 250 barrels a day—the limit—running day and night. They have to turn away a large number of orders. Millers throughout the country should notice this fact, and inquire as to our facilities here for flour mills.

Archibald Gilgrist, a Liverpool miller, spent the greater part of last week here looking on the market. He bought at Dunn & Thomson a considerable quantity of wheat from the burned elevators.

The Union National Bank of Duluth is the new institu-

tion in which O. R. Cummings, N. B. Ream and other Chicago capitalists, A. M. Miller, Owen Farquson and others of this city and several New York, St. Paul and Minneapolis parties are interested. Its paid-up capital will be \$500,000. Expect to be ready for business about March 1.

Several other banks are expected to start shortly afterward, the particulars of which the writer is not at liberty to give as yet.

The first bucket-shop in Duluth is now in operation (an institution we are not particularly proud of, and would be glad to chronicle its failure) and is operated by Mr. H. W. Davis, late of St. Paul.

The Northern Pacific Elevator, at Verndale, with 25,000 bushels of wheat, burned on the 5th inst. Jan. 11, 1887.

PROBUS.

GRAIN LAWS IN MINNESOTA.

The first report of the Board of Railroad and Warehouse Commissioners of Minnesota is largely taken up in recommendations to the legislature for additional and supplementary laws. Already bills have been introduced which embody the recommendations of the Railroad and Warehouse Commissioners. The changes are important. It is proposed to make all grain warehouses in which grain is handled for a compensation in the cities of St. Paul, Minneapolis, and Duluth public warehouses and subject to the control of the law. Under the act of March 5, 1885, a warehouse mixing grain for different owners was a public warehouse.

Under the proposed law any warehouse storing or handling grain for a compensation must take out a license. The result of the old law was that not a single warehouse in St. Paul was licensed. The first year in Minneapolis but two applications for license were received. In Duluth every elevator became a public warehouse under the law. This year, however, there are six public warehouses in Minneapolis at this date. In Duluth all the elevators are public warehouses. At St. Paul as yet there are none. Another important change suggested in the grain law is that all grain should be inspected on arrival at these points and before delivering to consignee. In no other way can inspection and weighing of all grain being marketed at these points be secured, which is the prime object of the law. The rule of the board now requires that all grain so arriving shall be weighed and inspected. Heretofore grain put into special bins, out of condition, under the law was required to be inspected out under the grade it went in, regardless of its changed condition. It is proposed now that such grain taken in, out of condition, in such bins shall be inspected upon its merits when it goes out. This is for the purpose of saving grain, damp or otherwise out of condition, for the benefit of the owner. Experience has shown that it was necessary to protect the crops of farmers shipping directly from the field. A bill will be introduced making all country elevators public warehouses and placing them under the control of the Board of Railroad and Warehouse Commissioners. The bill will provide that elevators and grain warehouses in this State, other than those in St. Paul, Minneapolis, and Duluth, shall be under the supervision of the Railroad and Warehouse Commission. No such elevator or grain-house shall be permitted to do a grain business for others for a compensation without a license from the Railroad and Warehouse Commission, which license shall be issued by the commission upon written application, which shall set forth the location of such elevator or grain warehouse and the individual name of each person interested as owner or principal in the management of the same, or if the elevator is owned or managed by a corporation the name of the President, Secretary, and Treasurer of such corporation shall be stated, and the license shall give authority to carry on and conduct the business of an elevator or grain warehouse at such locality in accordance with the laws of the State, and shall be revocable upon a summary proceeding for cause shown before the commission.

Mr. Dodge, statistician of the Department of Agriculture, says in regard to the extravagant estimate of wheat production in California, which has been stated at 67,000,000 bushels, that it is at least 20,000,000 bushels too high, and that the crop of that state is commercially over-estimated every year, the excess averaging not less than 20 per cent. for ten years past. This, he asserts, is proved by the data of consumption and exportation.

THE DEPARTMENT'S FINAL REPORT.

The Department of Agriculture's estimates of area, product and value of corn, wheat and oats for permanent record are completed. The official work of the year has been thoroughly reviewed with the aid of state co-operation, and all available data of crop production, and the aggregates are substantially those recently reported. The corn crop, in round numbers, aggregates 1,665,000,000 bushels, grown on 75,000,000 acres, and has a farm value of \$610,000,000. The yield is 22 bushels per acre—4½ bushels less than last year. There is an increase in area of over 8 per cent., and a decrease in product of 14 per cent., while the average price has increased 12 per cent., or from 32.8 cents to 36.6 cents per bushel. The aggregate product of wheat is 457,000,000 bushels from an area of nearly 37,000,000 acres, having a farm value of \$314,000,000. The average value is 68.7 cents per bushel, against 77.1 for the previous crop, and 64.5 cents for the great crop of 1884. This is 35 per cent. reduction from the average value between 1870 and 1880. The yield of the spring wheat centers is better than was expected early in the season, and on the Pacific coast much worse. The general average for winter and spring wheat is nearly 12.4 bushels per acre. The product of oats is 624,000,000 bushels, 5,000,000 less than last year, from an area of over 23,000,000 acres, producing a value of \$186,000,000. The average yield is 26.4 bushels, against 27.6 last year. The average value is 29.8 cents per bushel; last year 28.5 cents per bushel.

Following is the tabulated statement of the crops of Western states:

Wheat.	Acres.	Bushels.	Value.
Michigan.....	1,662,721	26,572,000	\$19,397,560
Indiana.....	2,721,526	40,255,000	28,178,500
Illinois.....	2,015,400	27,562,000	19,017,780
Wisconsin.....	1,281,018	14,725,000	10,013,000
Minnesota.....	3,067,851	42,856,000	26,142,160
Iowa.....	2,657,105	32,455,000	19,473,000
Missouri.....	1,662,721	21,986,000	13,851,180
Kansas.....	1,272,300	14,556,000	8,442,480
Nebraska.....	1,579,727	17,449,000	8,201,030
Corn.			
Michigan.....	948,069	27,635,000	10,501,300
Indiana.....	3,720,681	118,795,000	38,014,400
Illinois.....	8,559,036	209,818,000	65,043,580
Wisconsin.....	1,109,779	28,493,000	10,542,410
Minnesota.....	668,380	19,905,000	6,767,700
Iowa.....	7,927,019	198,847,000	59,654,100
Missouri.....	6,484,600	143,709,000	44,549,790
Kansas.....	5,812,615	126,712,000	34,212,240
Nebraska.....	3,879,123	106,129,000	21,225,800
Oats.			
Michigan.....	628,116	18,521,000	6,297,140
Indiana.....	1,034,923	31,798,000	8,585,460
Illinois.....	3,257,180	103,649,000	26,948,740
Wisconsin.....	1,398,349	39,656,000	11,103,680
Minnesota.....	1,184,032	40,735,000	10,183,750
Iowa.....	2,298,752	78,454,000	18,044,220
Missouri.....	1,305,884	30,577,000	7,644,250
Kansas.....	964,930	25,517,000	6,379,000
Nebraska.....	742,051	21,965,000	4,154,350

THE GREAT NORTHERN ELEVATOR AT SUPERIOR, WIS.

BY CHAS. C. SMITH, C. E.

The elevator at West Superior—the so-called Great Northern elevator—is situated on the east side of the St. Louis river, in the state of Wisconsin, about two miles from Duluth elevators. It is 98x386 feet, ground measurement, and has been built in first class manner by J. A. McLennan, a well-known elevator contractor of Chicago, the aforesaid being the nineteenth one of large size that he has constructed, the others having been built in the vicinity of Chicago. This elevator is built upon hard ground and distant not less than one hundred feet from the water, and from a point below the surface of the water piles are driven with crossed cribs thereon, then large piers of cut stone laid in cement, built to a height of ten feet, upon which is placed the first timbers of the elevator.

The wall next to the water is built solid; the stone piers are four feet square on top and six feet square at the base. The elevator is constructed like all others, viz: The bottom story is made up of large timbers, the posts resting on the stone foundations before mentioned; above this is the crib work of the bins, extending up sixty-three feet higher; this comprises the main building. At this height the top of the building is drawn in on its sides for three stories, containing in same the main working shaft, the scales and hoppers. The shaft on the upper floor is to be run by a thirty inch belt, connecting same with the main driving shaft. The entire building is constructed in the very best manner, and has not settled the least amount. On Saturday last the Duluth

Board admitted the elevator as "regular" under the rules. All materials, machinery, engines and boilers are new; cost of same in place, \$317,000. We have also expended this summer on account of this elevator the following amounts, for different purposes, as hereafter stated:

Dredging the slips.....	\$30,000
Grading the elevator grounds.....	14,000
Six miles of track.....	46,000
New elevator dock.....	30,000

Total..... \$126,000

All of above work was on newly graded ground and the first work of its kind done on the Wisconsin side of the river.

HOW TO TIE A BAG.

Our illustration shows a form of bag tie which effectually prevents any slipping if properly adjusted. Take any strong cord about 18 inches long and double it as herewith shown, passing the ends through, making a loop



around the mouth of the bag. Now pull as tightly as you can; then take an end of the string in each hand and pull again in opposite directions; pass the string completely around, make a knot, and double or single bow-knot, and the work is done. A very little experience will make one expert, and he can then guarantee the bag not to come untied.—*American Agriculturist.*

CORN GRADES AT CHICAGO.

The State Board of Railroad and Warehouse Commissioners have been in session in this city, listening to evidence in regard to the grading of corn in this city. For the last few weeks there has been a great deal of complaint on the part of receivers that the local grain inspectors were too rigid in their classifications of corn, and that grain which would easily grade as high as No. 2 yellow elsewhere was graded as low as No. 3 yellow here. Complaints of this kind go direct to the Committee on Appeals, which is composed of three expert grain inspectors, and as a matter of fact this committee, during the last few weeks, has raised the grade of a large quantity of corn which the inspectors classified as No. 3 yellow. The work, however, was increasing so rapidly and there were so many demands for a change in the grade as first determined by the inspectors that it was thought better to lay the whole subject before the State Board, which exercises jurisdiction over the Committee of Appeals, as that committee does over the inspectors, and requests it to direct that the inspectors relax their rigid classifications. The importance of the matter arises from the fact that corn graded No. 2 yellow is worth from two to four cents per bushel more than the No. 3 yellow, and because a relaxation of the now rigid inspections would tend to bring millions of bushels of corn to this market which go elsewhere because it is certain to be graded higher and sell for a better price. The other side of the question is simply that the rigidity of the inspections here has given Chicago a most enviable reputation in every country on the globe which goes into the market as a purchaser of corn; while the certificates issued by the grain inspection department are regarded as gilt-edged security by all the banks in the United States, and which, it is said, accounts for the vast sums of money which are sent here annually to assist in moving the crops of grain. The claim is made that as the inspections here rank so high, if the inspection department is to lean at all it should be on the side of rigidity, leaving the Committee on Appeals to remedy all cases of gross injustice to the receivers and shippers.

William J. Pope, of the grain-receiving firm of Pope & Lewis was among those who testified yesterday. Gen. Rinaker conducted the examination. Mr. Pope said that during December his firm received thirty-eight carloads of corn from one shipper in a certain town located on the Illinois Central Railroad, every car of which was graded No. 2 yellow. So far in January seventeen carloads had been shipped, by the same man from the same place, and as far as his judgment went and that of a number of experts that January shipments of corn were of the same grade as the shipments last month, yet the inspectors

graded every car of it as low as No. 3 yellow. He claimed this showed something wrong on the face of it, and, as was to be expected, he had taken the matter to the Committee on Appeals. The greatest trouble, he said, was experienced with the inspections made on the Illinois Central, the Wabash, and the Alton railroads, and that the course of the local inspectors in grading the corn too low had already driven millions of dollars' worth of business away from this city. One year ago, he said, the inspections were not rigid enough, but now the pendulum had swung in the opposite direction, and they had become too rigid. He thought there was a happy mean which should be reached at once, and that the inspectors should get over their fear of grading too high. In 1879, he said, the receipts of corn were 97,000,000 bushels, while last year they only amounted to 60,000,000 bushels, when they should have exceeded the receipts of 1879. The trade was slipping away from this city because of incompetent inspection. In his references to Peter Reed he said there had never been a more competent man in the department, and while the man who succeeded him might be a thorough politician, he did not believe he knew anything about corn.

Messrs. E. P. Baldwin, Murray Nelson, P. B. Weare, James Hyde, John R. Bensley, and C. E. Foss testified to the rigid inspection of corn, claiming that grain graded No. 3 could properly be classed as No. 2. James Patten was one of those who was satisfied with the present grading, and said that the trouble was not with the inspectors, but that it was a question of freight rates, and that he knew of his own personal knowledge that corn had been shipped from St. Louis to Boston for 10 cents while it cost 15 from Chicago. Questioned on this point, he said it had occurred one year ago, but he was unable to say whether it was being done at the present time or not, although he believed it was. Hiram J. Coon testified that the moment navigation became closed for the year Chicago became a vast storehouse for corn, and that it was necessary to store a quality of corn which would hold its grade until wanted for shipment the ensuing spring. He thought the inspections here were correct, but admitted that they had been unusually rigid for some days past, but he thought it better to err on that side than the other. Mr. Pope asked him if he was not in the habit of buying No. 3 yellow, and he answered affirmatively. He then asked him if he ever bought any No. 2 yellow, to which he replied no, as he could sell the corn he purchased here as No. 3 elsewhere as No. 2. Mr. Pope then claimed that was the secret of the opposition to a change in the grading here, stating that it was very profitable for men to buy No. 3 corn here and sell it elsewhere as No. 2.

In this connection we may quote a letter written to the *Tribune* of this city, by Mr. T. W. Lowrey, of Lincoln, Neb. Mr. Lowrey says: "I wrote you a few days ago that the bulk of our corn was grading No. 3 and that the same quality of corn a short time ago graded No. 2. The inspectors claim that the same is now soft, but you know that this is an utter impossibility on account of the extreme cold weather of the last three weeks. The 6th of this month I appealed seven cars of No. 3 corn, or what your inspectors called No. 3 corn, and the committee changed the grades of five of them to No. 2. The 7th I appealed three more cars, and the committee changed two of them to No. 2. Now it looks to me that a man who pretends to be an inspector of grain and was reversed in this way is surely either incompetent or unjust. In either case I think a lay-off would do him good. If they had inspected this grain as they should I would have been \$15 ahead, but I am now out \$15, which I lost in not being able to reverse the inspection of the three cars. If they had inspected these cars properly in the first place I would have said nothing about the three cars, and so saved my money. We are working hard and on very close margins here, and it is our wish to ship our grain to your city. The Burlington & Missouri River and the Chicago, Burlington & Quincy railroads are doing all in their power through their usual generosity, to induce the shippers of Nebraska to send their grain to Chicago, but when the shippers are treated as above stated you cannot blame them for trying to divert their grain to other markets. I am now shipping most of my grain south, and it is all grading excellently. We have not had the least complaint from that section, and there the weather is usually as warm as it is in Chicago. In Baltimore they have in their elevators a large machine commonly called a blower, and when grain arrives there that is a little dusty they run it through the blower, which takes the dust out and the grain is graded according to its quality,

which is very satisfactory to the shipper. I believe that they have the same thing in Buffalo, and I understand that they are preparing to have it at Duluth. Would it not be a good idea for Chicago elevators to do the same, as there is a great deal of corn that is undoubtedly arriving in your city that is slightly dusty and if blown would be No. 2 corn, although the rules of your city do not call for clean corn to grade No. 2. The rule reads as follows: 'No. 2 corn shall be mixed corn, dry, and reasonably clean, but not good enough for No. 1.' Whenever your inspectors find a little dust or a few pieces of cobs, which it is almost impossible to get out, they reduce the grade. This I cannot think is in accordance with the rule. I think that a great deal of this unjust discrimination in grades would be avoided if the Board of Trade would insert the word 'new' in the grade of corn until after the 1st day of May, and in this way the buyer would know just what he was buying and what he bought for No. 2 corn, and he could move his corn before the germinating season or be sure that it was in good enough condition to stand the warm weather during May and June. I understand that quite a number of your receivers were in favor of this some time ago, and I trust they will take action on this point, as I believe it would greatly benefit all interested, particularly so the poor farmers of Nebraska."

THE NEW YORK ELEVATORS AND THE BOATMEN.

On Dec. 29 Mr. William E. Cleary, president of the Erie Canalboat-Owners' Association, had a conference with a number of gentlemen representing the grain elevators' interest of this port. Among the latter were Ed. Annan, of Annan & Co., representing Columbia and Dow stores and sixteen floating elevators; R. H. Laimber, of Laimber & Master's stores, and Franklin Woodruff, of Woodruff & Kelsey's stores. The representatives of the Boatmen's Association requested a reduction in the charges of elevating and trimming from \$4 to \$2 per 1,000 bushels, a rectification of the present shortage system by boat-owners, who are made responsible for any deficit in weight from the amount charged against them in the bill of lading given them at the Buffalo elevators. This shortage runs all the way from three to 50 bushels per boat-load, and is a serious loss to the boat-owners. They also requested the elevator men to assist them in their efforts to procure legislation looking toward the widening and deepening of the locks of the Erie Canal, so that their boats can have an increased cargo capacity of 360 tons. The committee stated further that in case the elevator men did not reduce their charges they would go to Albany this winter and secure the passage of a bill reducing the charges.

The elevator men refused to grant the proposed reduction, claiming that their expenses are higher and their earnings less than ever before. They intimated their willingness, however, to unite with the boatmen in procuring the passage of a bill to improve the canal in the way suggested, on the express condition that they should let the charge for elevating remain at the present rates. The shortage matters they were also willing to settle satisfactorily.

After some further business it was agreed that the elevator men should put their answer in writing and send it to the Boatmen's Association.

GRAIN HANDLING IN DAKOTA.

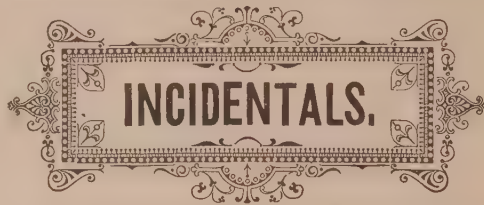
The Dakota Board of Railroad and Warehouse Commissioners make the following recommendations in their annual report:

That the "transit system" be prohibited in Dakota, unless accompanied by an option to the shipper to ship at a "pro rata" local rate, or unless the carrier guarantees to redeem the transit ticket at par.

That the Board of Railroad Commissioners be authorized to bring suit in the name of the Territory against any of the public corporations, or public elevators or warehouses, over which they now have, or may hereafter be given jurisdiction, to enforce a right or to correct any abuse by said corporation of its franchise, or owner or proprietor of an elevator or storehouse, of his trust, or to recover for any damage done by any such corporation or person to the public, or to a resident of the Territory: Provided that the Attorney General shall in writing give his consent thereto.

That all elevators, warehouses and storehouses, wherein grain shall be received from the public, for storage or ship-

ment, be declared public warehouses, and the owners or proprietors be required to give bond and be licensed by the Territory, and that all grain tickets, or receipts therefor, be made and issued in form negotiable.



Montreal grain shipments for 1886 show an increase of 40 per cent. over 1885.

The large grain shippers of Milwaukee propose to combine against the excessive freight rates now charged.

Duluth has hitherto been so fortunate as not to have had a bucket shop. However, she is now to have the privilege of gambling, like other places.

The Board of Trade of Columbus, Ohio, passed resolutions denouncing the Inter-State Commerce Bill, and asking Senators Sherman and Payne to vote against it.

Norman B. Ream's palatial home on Prairie ave. was destroyed by a fire early on the morning of Jan. 14. The loss was over \$100,000, partly covered by insurance.

A contractor is looking over the territory lying between Duluth and Port Arthur in the interest of American capitalists who intend to build a railway for grain traffic.

The winter wheat belt has been pushed westward almost 800 miles in the last three years, according to Frank Wilkeson, of the New York *Sun*, and this is due entirely to climatic changes.

A large number of Center county, Pa., farmers, who purchased Bohemian oats at \$10 a bushel from a sleek crook sailing under the name of Curtis, last spring, are just out in the aggregate the sum of \$30,000.

The first bill introduced into the Michigan Legislature now in session, was one designed to "punish and prevent fraud in the sale of grain, seeds, and other cereals," which is aimed at the bonded wheat and Bohemian oats business.

One Sunday recently eighteen freight trains passed through Galena on the Illinois Central R. R. Four of them were double headers and were loaded with grain and flour shipped from Minneapolis to the East and South.

A Halifax dispatch says: There is unusual activity in grain shipments. Half a million bushels of Ontario grain has already been shipped to Halifax this year, and 300,000 bushels now await the arrival of steamers to load. It is probable the grain shipments this winter will exceed all the previous shipments from this port put together. The Nova Scotia sugar refinery is shipping a train load of sugar a day to the Upper Provinces, and 16,000 bags of raw sugar, discharging here, await shipment to Montreal refineries. Very large quantities of flour and other freight are coming over the Intercolonial Railway.

According to the Minnesota law, shipments of grain from Duluth, Minneapolis or St. Paul cannot be made until the receipts are at hand. As a majority of receipts on Duluth elevators are held in New York and Montreal this would cause a delay of days or weeks to vessels carrying wheat. By common consent this section of the law has been evaded. The commissioners now suggest that they meet with a committee of the Board of Trade to draft amendments to the law, making it practical. With nearly nine million bushels of wheat in store and only \$700,000 bank capital, Duluth naturally is a patron of Eastern banks to the extent of millions of dollars.

In 1850 the number of bushels of Indian corn grown in the United States, according to Secretary Flint's report, was a fraction less than 600,000,000 grown on 31,000,000 acres, or less than 20 bushels per acre. The value of the crop was estimated at nearly \$300,000,000, or about 50 cents per bushel. The yield per acre in Ohio was given as 36 bushels; in Missouri, 34 bushels; in Illinois, Indiana and New Jersey each, 33 bushels; in Iowa, Michigan and Vermont, 32 bushels; in Massachusetts, 31 bushels; in New Hampshire and Wisconsin, 30 bushels; while Connecticut stood highest of all with a product of 40 bushels per acre. In seven of the large corn-growing Southern states the yield per acre was from 11 to 18 bushels. In 1879, according to the United States census, the yield of corn in

the whole country was 1,754,861,535 bushels, grown upon 62,368,896 acres, or over 28 bushels per acre. The four states of Illinois, Iowa, Missouri and Indiana produced more than half the total crop, or 52 per cent. The greatest production of corn was in the region between the fortieth and forty-first parallels, where 20 per cent. of the crop was grown. The total product for the present year will fall little short of 1,600,000,000 bushels.

The following crop summary will appear in this week's edition of the *Farmer's Review* of Chicago: Reports from correspondents show that fields of winter wheat in Ohio, Michigan, Indiana, Illinois, Wisconsin and Missouri are very generally well protected with snow. In Atchison, Dickinson, Lincoln, Neosho and Sedgwick counties, in Kansas, the fields are reported bare and the ground dry, with the crop looking poorly. There is a free movement of corn from adjoining states. There are serious reports of cholera among the hogs from fully one-third of the counties in Illinois, with more or less prevalence of the disease in Indiana, Iowa and Missouri. In Adams and Mason counties, in Illinois, the disease is inflicting serious losses.

A Duluth man writes to his local paper: The Board of Trade, the Chamber of Commerce and the Produce Exchange ought to be poked up on the subject of rail freight rates on grain east from here. The Board of Trade especially is blind to its own interests in not using all possible means to have grain rates from Duluth to Milwaukee and Chicago placed on the same basis as rates from St. Paul and Minneapolis to those places. For about two weeks Minneapolis has been making sales of hard wheat for export, all rail, to seaboard. Get the same rates for Duluth and we can soon work out wheat enough from Duluth elevators to begin receiving and keep the stream flowing our way. The importance of Duluth as a grain market entitles her to as favorable rates as other points and only the laziness or blindness of her business men and newspapers prevents her having an equal chance with others.

A San Francisco authority says: "The estimates of this season's wheat crop, which six months ago were as high as 60,000,000 bushels and over, still widely differ, some asserting that there will be 40,000,000 bushels, while other equally competent authorities are positive it will not exceed 30,000,000. As the closest calculators lean toward the lower figures, the estimate of the crop is here placed at 34,000,000 bushels, and the old crop on hand July 1, amounting to 2,600,000 bushels, added to the present season's crop 34,000,000, makes a total of 36,600,000. Deduct the shipment to Europe and other countries between July 1 and December 15, 14,000,000 bushels, the quantity that will be shipped between December 15 and 31, 1,500,000; required for home consumption, seeding and carry over 11,500,000. The balance available for shipment, 9,600,000 bushels. The continent this year has taken 25 per cent. of our European shipments, something unheard of before. Our shipments to Europe are considered large because they are compared with last year, which were unusually small. This accounts for the impression that California has such a large crop this year."

That ubiquitous personage "Many Farmers" (brother to "Old Subscriber," "Tax Payer" and "Many Citizens") writes as follows to the Minneapolis *Tribune*: The farmers would like to ask Mr. A. B. Robbins, manager, how much the elevator companies make on dockage? For instance, docking in from two to five pounds a bushel, and docking out? Have they a case on record where a farmer has cleaned his wheat clean enough so that they did not dock from one to five pounds a bushel? Another question: How much do elevators make from overruns each season? Is it not a fact that the odd pounds are always taken by the elevator, to the extent of 12 to 14 pounds on every load brought to the elevator, be it large or small? Who are entitled to the screenings after paying for having their wheat cleaned and submitting to a dockage of two or more pounds per bushel, the farmer or the elevator? And we might as well remark right here that the legislature should have some rule for this dockage. Every elevator should have a screen or sieve that will take out all dirt and of sufficient size to clean a half bushel or more, and be compelled to use this when an agreement in regard to dockage can not be made between buyer and seller. As the case now stands we know we are swindled by this system of dockage and weighing. We claim we should have every pound our grain weighs, and that the elevator should not say 40 bushels and 15 pounds when the actual weight is 40 bushels and 28 pounds.

ELEVATOR AND GRAIN NEWS

The grain elevator at Ridgeway, Mich., is completed. Half the corn crop of Dakota Co., Neb., is yet ungath-ered.

David M. Tate has retired from the firm of Milmine, Bodman & Co.

It is reported that a brewery will soon be started at San Antonio, Tex.

Heavy shipments of broom corn are being made from Holdrege, Neb.

A company has been formed at Hagerstown, Md., to build a grain elevator.

The Chicago grain commission firm of E. B. Sackett & Co. has been dissolved.

Joseph Tighe succeeds Tighe Bros. in the grain business at Bradshaw, Neb.

Carter & Baird, grain and feed dealers, of Wheeling, W. Va., have dissolved.

W. S. Thornton, a grain broker, of Cincinnati, Ohio, has made an assignment.

Dunn & Thomson, of Duluth, have leased the warehouse of Cutler & Gilbert.

The firm of Mitchell & Livingston, grain dealers of Baltimore, Md., has dissolved.

The new grain elevator at Lawrence, Neb., will be completed in about three weeks.

The grain firm of Kendall & Jewell, at Manchester, N. H., has dissolved partnership.

Hiland & Sperry is now the style of the firm of R. B. Sperry & Co., at Minneapolis.

The milling and grain firm of Bussy & Manson succeed Wm. Bussy, at McCune, Kan.

The new elevator just completed at Broken Bow, Neb., has a capacity of 12,000 bushels.

Cargill Bros., of Minneapolis, Minn., are building a new elevator at Princeton, same state.

The elevator capacity of Hamilton, Dak., will be increased 50,000 bushels this winter.

Shafner & Ingle, grain and commission merchants, of Shelbyville, Tenn., have dissolved.

There were \$50,000 worth of baled hay marketed at Stuart, Neb., during the past season.

Campbell & Ratcliffe, grain commission merchants of Buffalo, N. Y., have dissolved partnership.

J. R. Gill & Son, grain dealers at Prairie City, Iowa, are succeeded in business by Gill & Zachary.

S. J. Clevenger & Co. succeed the grain commission firm of Burk & Clevenger, at Philadelphia, Pa.

Corn is reported to be very scarce in Northwestern Iowa, the supply not being equal to the home demand.

Edwin Hughes & Co., grain and provision commission merchants, of this city, have dissolved partnership.

Robert H. Thorburn has been admitted to the grain commission firm of Wm. Dunn & Co., of this city.

The two elevators at Hutchinson, Minn., have been taking in wheat at the rate of 6,000 bushels per day.

The well-known firm of C. J. Kershaw & Co., of Milwaukee, has been organized as Hill, Flertshiem & Co.

A receiver has been appointed for McKeehan & Lucas, grain and commission merchants, of Cincinnati, Ohio.

The grain commission firm of W. H. Wallace & Co., New York City, has been succeeded by William H. Wallace.

The Minneapolis, Minn., Union Elevator Company has recently sold 100,000 bushels of wheat for direct export.

The grain firm of E. M. Bennett & Son, at Urbana, Ohio, has been closed out by the sheriff on a judgment of \$11,000.

The Farmers' Union Elevator Co., at Barnesville, Minn., is building a new elevator with a capacity of 35,000 bushels.

Goodnow & Wickham, of Salina, Kan., have erected an elevator at Lincoln, Kan., and Morrison & Poor are building another.

The Minneapolis & Northern Elevator Co. will expend a large sum in improvements around their property in Barnesville, Minn.

It is claimed that the independent warehouse at Jackson, Minn., has saved Jackson county farmers at least \$1,500 during this season.

William R. Wilson, of Fremont, Neb., has been succeeded by Wilson & Morehouse Co., in the grain and lumber business at the above place.

E. T. Wilder, assignee of the Minnesota Elevator Co., has sued David Dows & Co., in the U. S. Circuit Court, asking judgment for \$35,870.60.

Great difficulty is experienced throughout the various towns in DeWitt county, in this state, in procuring cars for the shipment of grain. At Midland City the town is composed chiefly of corn cribs which contain almost

75,000 bushels. Great quantities at other places are also awaiting transportation.

Sharp competition among the grain buyers of Stromsburg, Neb., is adding a few cents to prices, and farmers are rapidly delivering their crop.

It will not be necessary to tear down the Pillsbury Elevator shed at Minneapolis, Minn., which burst open last week. Repairs will be begun at once.

Angus Ross has been appointed by Judge Perkins receiver of the grain, fuel and farm machinery business of Arthur E. Patterson, of Luverne, Minn.

Iowa parties are engaged at Wakefield, Neb., in erecting large corn cribs. They intend to buy about 30,000 bushels of corn at that market this winter.

At Fremont, Neb., the two grain and lumber firms of Nye, Colson & Co. and Wm. R. Wilson, have consolidated under the style of Nye, Wilson & Morehouse Co.

The Illinois Brewing Co., at Lebanon, Ill., has been incorporated with a capital stock of \$25,000. The incorporators are Jacob Hammel, J. D. Baker, and C. J. Pfeffer.

The elevator capacity of Minneapolis, Minn., shows an increase of 3,255,000 bushels for the past year; the capacity of the whole Northwest increased 11,781,000 during the same time.

The Illinois board of railroad and warehouse commissioners has reappointed Thomas H. Foster a member of the board of appeals of the grain inspection department, and Wm. N. Brainard, vice Mr. Reed, whose time has expired.

The Merchants' Elevator Co.'s new elevator B., St. Louis, Mo., was opened for business, Friday, Jan. 14. Col. Slattery, the president, states that the C. B. & Q. railroad has 500,000 bushels of corn ready to put into it at once.

The Lake Superior Elevator Co. decided at a meeting held Dec. 16, to build a grain elevator with a capacity of 1,500,000 bushels, to be completed in sixty days. The Union Improvement Co. is also building one of 1,300,000 bushels' capacity, to be finished by summer.

It is figured out that the wheat growers of North Dakota, in spite of the high rates of transportation, have an advantage of 7 cents a bushel over the farmers of Iowa, 14 cents over Nebraska, and 16 cents over Kansas. Land is much cheaper in Dakota than in either of those states.

The *Northwestern Miller* has the following: "It is said that the Great Northern Elevator Co., whose large house at Superior, Wis., has just been opened, is negotiating for the construction of two more elevators of nearly the same capacity at the same place, to be completed for the reception of next year's crop, when a Board of Trade may be established there."

There are rumors afloat of several more elevators to go up at Duluth, Minn., during the coming season. Two new companies, backed by some of the largest railroad and grain men of the country, are in progress of organization. By the beginning of the next crop year Duluth bids fair to have added nearly 10,000,000 bushels to her present storage capacity.

Arrangements are being made by the Marion County Agricultural and Horticultural Society for a state prize corn show, to be held at Indianapolis, Ind., on March 10 and 11. Premiums will be awarded to eighteen different kinds of corn and a number for the successful ladies who can best cook it. It is also intended to collect statistics of the corn crops in that state.

Work will begin this week on Elevator "J," the new house for the Lake Superior Elevator Co. It will be the same size as Elevator "G," and will have two towers upon the shore end, in which will be located the receiving machinery. It will have no shipping apparatus, the wheat being transferred to elevator "I," which will be erected later in the year, for shipment. There will probably be built this next year enough elevators to more than double the present grain capacity of Duluth houses.—*Duluth Daily Trade*.

The Salina, Kan., *Herald* says: "It is impossible, it seems, for our various railroads to supply our grain merchants with a sufficient number of cars to handle their grain. The elevators are full and running night and day, besides every available warehouse in the city is being converted into a granary. Every road running into the city has been running from two to four extras each day, and yet do not seem to make any hole whatever in the vast accumulation of grain at this place. This proves that Salina needs more railroads."

The grain dealers and the track buyers down in Champaign county, Ill., are having a regular war, in which the farmers are participating. The latter are forming Alliances in every town and at nearly every grain-buying railroad station in Central Illinois, when there is still an enormous corn surplus in first hands. This controversy has arisen from a combination of buyers called the Grain Dealers' Association, embracing those engaged in the business in town, city and country alike. A rule of the association is, there shall be no buying by dealers in the large cities like Chicago, Indianapolis, New York, Boston, etc., except from grain dealers regularly engaged in the business in the West. The result, of course, is that farmers and producers can sell only to these men. Among others the chief object was to cut off the "track buyers," or those who made a practice of buying corn and other grain and having it delivered into the cars on the railroad tracks. They, incurring no expense for rent, clerks, insurance, etc., were able to pay a cent or two more than the regular dealers, and of course did a large share of the business, shipping grain east and north, and latterly to

Kansas and west. Fully half the supply of corn in Western Kansas has been marketed. There is little wheat left.

Says *Daily Business*, of this city: "The annual three-cornered row between the receivers, the shippers and inspection department is on. The receivers complain that the inspection of corn is too rigid, and within the past two days the appeals committee has changed about 100 cars from No. 3 to No. 2. This pleased the receivers, but raised the ire of the shippers and carriers, and the matter has been carried to the Railroad Warehouse Commissioners, who are in session to-day. The receivers and the country shippers contend that the quality of corn of last crop is very superior, and that the inspection does an injustice to them. To aggravate the ill feeling Peter Reed, an expert member of the appeals committee, and a popular man, has been displaced, and Wm. R. Brainard appointed to fill the vacancy."

The DeSmet, Dak., *Leader* says: "The stockholders of the Farmers' Shipping Association held their annual meeting last Tuesday. Nearly all of the shares were represented either by the owner in person or by proxy. The officers submitted a report of the business done by the warehouse from Sept. 1 to Nov. 30, which appeared to be satisfactory to all. The balance on hand Sept. 1, collected for rent was divided among those owning stock at that time, which gave them \$1 each. The net profit on wheat sold to Nov. 30 was found to be five and a fraction cents per bushel. After deducting the expenses of the warehouse a clear profit of four cents per bushel remained. Of this amount each shareholder was given a rebate of 2 cents on each bushel of grain sold by him to the Association. The amount which remained equalled about 25 per cent. on the amount invested. The directors had decided to draw out only a portion of the profits at this time, and so declared a dividend of 5 per cent. per month to each shareholder from Sept. 1, or the date of his share. The subject of enlarging the association and building an elevator was thoroughly discussed. The majority present seemed to favor completing the year as they had commenced, and the matter was dropped for the present. The following were elected as a board of directors: John A. Owen, R. N. Bunn, J. E. Hollister, A. Whiting, and S. J. Hoffma. At a subsequent meeting of the new directors A. Whiting was made President; R. N. Bunn, Secretary, and John A. Owen, Treasurer. A committee, consisting of Walter N. Carroll, S. J. Hoffma, and C. P. Sherwood was appointed to examine the treasurer's books. During the meeting three stockholders announced their shares for sale, assigning various reasons, and they very quickly found purchasers. The demand for shares was so great that no doubt half of the number issued could have been transferred within a short time. The report of the officers included only 28 cars of wheat while nearly 40 had been sold, but returns had not been received on the balance. The association appears to be doing a very successful business."

MINNEAPOLIS ON WATERWAYS.

The Minneapolis Board of Trade at its last meeting adopted the following resolutions in reference to waterway improvements, which were duly transmitted to the River Commission for submission to the Governor:

Your memorialists, the Board of Trade of the city of Minneapolis, would respectfully and earnestly represent:

That the future welfare and prosperity of this city and state largely depend upon the opening out and improvement of the waterways in the interest of cheap transportation.

That this great work has been fully and fairly inaugurated under the direction and superintendence of United States Engineers and such results already attained as to demonstrate that transportation charges can be reduced to a minimum over our water routes at an insignificant expense when compared with the results to be reached.

That, therefore, the appropriations made for the improvement of the 1,360 miles of navigable waterway which bound, or penetrate, the state of Minnesota, have been insignificant, and that this great work, so much needed for our relief, has been greatly retarded, and unless greater liberality is displayed on the part of Congress must be delayed years before relief is afforded.

That we call the special attention to and invoke liberal appropriations for work in the Upper Mississippi, Yellowstone, the Red River of the North, Minnesota River, the Upper Mississippi, St. Croix, and the harbors of Lake Superior, all of which constitute our means of ingress and egress for all we bring into or send out of our state, and which, properly improved, will perpetually give us low rates of freight.

That we insist that work on the great reservoir system be pushed to a speedy completion, inasmuch as its utility has been fully demonstrated by the work already done.

That we call immediate attention to the necessity of improving the Mississippi River between the cities of St. Paul and Minneapolis in order to relieve the enormous commerce of the city.

To this end we ask that liberal appropriations be made for the improvements recommended by the engineers.

That our Senators and Representatives in Congress are respectfully urged to make special efforts to secure the appropriations for the work herein mentioned.

The following is the New York Produce Exchange statement of visible supply of grain on Saturday, Jan. 8, 1887: Total in store and afloat: Wheat, 63,345,689 bushels—increase, 615,820 bushels; corn, 15,077,848 bushels—increase, 1,294,734 bushels; oats, 4,877,847 bushels—decrease, 148,763 bushels; rye, 438,607 bushels—increase, 3,178 bushels; barley, 2,724,079 bushels—decrease, 61,719 bushels.

THE AMERICAN ELEVATOR AND GRAIN TRADE.

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ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., JAN. 15, 1887.

ARE THEY USELESS?

The Milwaukee Chamber of Commerce recently passed resolutions asking the National Board of Trade, which meets this week, to take action looking to the suppression of the monthly reports of the Department of Agriculture in regard to the crops. The Milwaukee resolutions declare that these monthly reports subserve no useful end; but often enable the foreign buyer to establish values for our crops in advance of the harvest, "often less than the actual outturn would warrant."

Although we have published the Department's reports regularly every month, we have, by no means, regarded them as infallible. In fact, they have often been proved the contrary. Nevertheless, we believe them valuable; and they have the merit of being conservative and disinterested. It seems to us that the point is not well taken that foreign customers fix the price of our crop in advance. The Department's reports are not their reliance; if they were, they would be sadly "left" occasionally. But if the Department's reports were discontinued, the producer would be left still more to the mercy of the home speculators than he is at present; and the home speculators more often fix the price of the crop in advance of the harvest than does the foreign buyer; and the latter places more trust in the visible supply than in crop estimates anyhow.

THE INTER-STATE COMMERCE BILL.

Notwithstanding all the efforts of the railroad people and their paid attorneys in the Senate, the Inter-State Commerce Bill passed the Senate, exactly as reported by the conference committee, by a vote of 43 to 15, a result which surprised even the most sanguine of the bill's friends. It will now go to the House, where no doubt it will receive even a larger proportionate majority than it did in the Senate.

The main provisions of this bill were explained at sufficient length in our last issue. The bill embodies no provisions but what are just to the public, and justice in their dealings ought not to be onerous to the railroads. The prohibition of pooling, rebates and discriminating charges will really enable the railroads to make more money than they do at present; and this is the sense of conservative railroad men. Of course the Standard Oil Company, Jay Gould and their ilk are not satisfied, which is pretty good assurance that the

public ought to be. The ridiculous attempts to bear railroad stocks before and after the passage of the bill was the work of stock jobbers; not a lack of confidence in the stocks. Of course some cities have profited by the discriminating charges of the railroads. These naturally object to the bill; but shippers all over the country recognize its practical justice. If it becomes a law, the railroads will not in the future hold individuals and communities by the neck as they do now.

CORN INSPECTION AT CHICAGO.

A good deal of complaint, in fact the annual complaint, has been made by both shippers and receivers that corn inspection has been altogether too rigid in Chicago for many months past. In fact, the Grain Receivers' Association of this city has embodied this statement in an official declaration. The truth is that last year the corn was soft and wet and the inspectors eased up on inspection. Later on they saw that a good deal of the corn that had been inspected as No. 2 was out of condition, and the Chief Grain Inspector put down the brakes and made the inspection more rigid; too rigid, many believe.

The Chief Grain Inspector himself, Mr. Price, explains the difficulties of inspecting corn under the present system; and what he says should tend to shield the inspectors from too acrimonious criticism in the light of past experience. In his annual report he calls attention to the fact that corn shelled in winter before the cob has had an opportunity to extract the internal moisture from its kernel (nature's process of curing) has in it, even if apparently dry, the germs of fermentation and decay, which may actively manifest themselves under suitable atmospheric conditions. Therefore, corn often apparently dry and entitled in all justice to grade No. 2 has, as experience proves, especially in a speculative market like Chicago, where it is necessarily in store for a long time, shows in after months that the inspection was too high. The remedy, Mr. Price thinks, is in establishing a grade of No. 2 new corn, to include all corn of the new crop of proper quality up to May 1, thus placing this winter shelled corn on its merits. The grain receivers, while recognizing the justice of Mr. Price's reasoning, are generally of the opinion that such a move would injure Chicago as a market. The inspection will probably be eased up; but the same old trouble will crop up next year.

GRAIN BUYERS' ASSOCIATIONS.

Restrictive legislation seems to be the order of the day; and the grain men are coming in for their full share of it. In several states distinctive ordinances have been introduced expressly prohibiting pools or associations of grain buyers that fix a price on grain. It seems strange that insurance companies, coal dealers and the like do not come in for a part of this attention; for it is a fact that these two classes of business men most often unite to prevent competition that wipes out the profit. It is certain that insurance companies have been obliged to make a fixed rate among themselves or else go without dividends. Grain men are largely in the same boat. Competition is often so great that more is paid for grain than it can possibly bring in shipment. There is actual war down in Champaign county, Ill., over a grain dealers' association that has excited the ire of the Farmers' Alliance, by trying to head off grain buyers who have no established business or warehouse, but who buy and ship in cars to other points.

Whatever may be the merits of this particular controversy, the grain men of Nebraska and Minnesota are confronted with bills which will probably become laws that are designed to prevent a combination among buyers. In Nebraska the bill provides that all grain dealers, whether persons, partnerships, companies or corporations, are prohibited from combining to fix the price to be paid for grain, hogs, cattle or stock of any kind, and in case of such pooling each day of its continuance shall be deemed a separate offense. Section 2 provides that in case of violation the offending person shall be liable to the injured

person or persons to the full amount of damages sustained, including costs. It also provides for bringing the offender's books and papers into court as evidence. Section 3 fixes the penalty for violation of this act upon conviction a fine not to exceed \$1,000 and imprisonment not exceeding six months, or both.

In Minnesota the retiring Railroad and Warehouse Commissioners have submitted to the legislature a bill which relates more exclusively to pooling than to agreeing upon the price to be paid. It provides that it shall be unlawful for any person, association or corporation, who shall operate any grain elevator or warehouse subject to the provisions of this act, to enter into any contract, agreement, understanding or combination with any other person, association or corporation who shall operate any other grain elevator or warehouse, subject to the provisions of this act, for the pooling of the earnings or business of other different and competing grain elevators or warehouses, so as to divide between the aggregate or net proceeds of the earnings or business of such grain elevators or warehouses, or any portion thereof; and in any case of any agreement for the pooling of the earnings or business aforesaid each day of its continuance shall be deemed a separate offense.

In the Minnesota bill there is not, perhaps, anything intrinsically unjust; but the Nebraska bill singles out one class of citizens for the operation of a rule which would not be thought of for an instant if applied to all citizens. To make such a rule general would be to prohibit a labor union from combining to fix wages (even just and fair wages); and would prevent grocers from agreeing not to sell sugar at a loss. The Nebraska bill is manifestly too sweeping.

AMENDING THE GRAIN LAWS IN MINNESOTA.

The first Board of Railroad and Warehouse Commissioners in Minnesota has made its final report based on its two years' experience, and, as directed by the law, have made numerous suggestions to the legislature, looking to the amendment of the law regulating railroads and warehouses, in the interest of the public. It seems to be acknowledged that the operation of the present law has been quite successful; and it is claimed that while confessedly defective, the warehouse law has been a positive advantage to all concerned. But the commissioners make numerous suggestions which they believe should be embodied in legislative enactment, in order to render the law more effective.

The gist of these suggestions is given elsewhere. One of the chief recommendations is that all elevators outside of those in the three cities where state inspection is made, shall be compelled to take out a license. This part of the programme is objected to by many farmers. They want the old law kept intact in this respect, confining the actual supervision of the law to the elevators at Minneapolis, St. Paul and Duluth, leaving the greatest freedom to all elevators, warehouses and buyers at the interior points. The retiring commissioners also recommend that all elevators at the three cities above named be obliged to become public warehouses; and they seek to provide by an enactment for an out-inspection of grain received out of condition and placed in special bins, in order that the storer may receive the benefit of any improvement in the quality of the grain through the storage period. On the whole, the recommendations of the commissioners are not of a nature to excite antagonism, as they simply tend to perfect the operation of the present law.

DETROIT is enjoying a grain blockade. On one road there are 350 cars of grain side-tracked outside of the city. One Detroit firm has been obliged to cancel orders for 400 cars of wheat since Sept. 1, and the demand is general for more elevators. The elevator men, however, say that the present elevators are not paying over 3 per cent. on the capital invested, and that there is no likelihood of other elevators being built very soon.

Editorial Mention.

THE Open Board of Trade in this city seems to be enjoying a genuine boom just at present.

THE "boys" on the Board of Trade indulged in their usual antics on the closing of the old year.

MESSES. S. S. SPRAGUE & Co., of Taylorville, Ill., in renewing their subscription, add: "We do not want to miss a single number."

THE San Francisco Produce Exchange reports that on Jan. 1, 1887, there were 7,812,850 centals of wheat remaining in the state of California, or over 13,000,000 bushels.

THAT fine, large "no liability" bill of lading has not proved a howling success. Beyond a doubt the dictatorial action of the roads gave strength to the Cullom Bill.

DAVID G. JONES, of Randolph, Wis., renews his subscription to the AMERICAN ELEVATOR AND GRAIN TRADE and indorses the usual verdict, "Can't get along without it."

THOSE who believe in the decadence of Chicago's trade, even her grain trade, should look at the figures. Those for the grain trade are given in Mr. Price's report, printed on another page.

It is claimed that De Lesseps has abandoned the sea-level plan for the Panama Canal. If this be true, it is a confession of failure. From any point of view the Panama route was the worst that could have been chosen.

It is feared that the Hennepin Canal is a "dead duck," so far as this Congress is concerned. But there is this consolation; that less "boodle" will be distributed for creeks and sandbars than is usual in the River and Harbor Bill.

THE Chesapeake & Ohio Canal seems to be doomed. The railroads propose to get hold of it. There appears to be war on the canals all along the line. The people must watch their representatives, or their interests may be betrayed.

THE Bournemouth suspension in Liverpool adds confirmation to the statement made in our last issue that the grain trade abroad has suffered greatly in the past few years. There seems to be great fear that this failure is only one of many that may happen.

At Duluth there are now over 9,000,000 bushels of wheat stored in the elevators, besides a considerable amount stored in vessels; and, in fact, every available nook has been filled up. In two of the elevators one of the tracks has been planked up for bins.

IOWA farmers and shippers will hail with acclaim any sort of mitigation of the discriminations which the railroads have practiced on that state. Beyond a doubt, Iowa has suffered more in this way than any other state. The railroad question is the question, in Iowa.

THE railroads running east from Chicago are realizing that they made a mistake in advancing East-bound rates. Shipments have fallen off nearly 50 per cent., and the decrease would have been still greater had not two of the roads made a 25-cent rate. These two roads carried nearly half the East-bound freights the first week in January. The Nebraska millers have formed an organization to establish uniform grades and

prices on wheat; and on the heels of this announcement comes another that a bill has been introduced into the state legislature making all such organizations illegal.

MERCHANT & Co., of Philadelphia, New York and Chicago, send us a very handsome calendar for 1887. Among other notable calendars which we have received, are those of the Case Mfg. Co., of Columbus, Ohio, Chas. Kaestner & Co., of Chicago, and McLaughlin, Sheldon & Co., of Owatonna, Minn.

MESSES. LIPPOLD & HEATH, of Corry, Pa., successors to the Eureka Mfg. Co., have something to say about their "Baby" and their "Giant," in their advertisement in this issue. They manufacture corn shellers and cleaners, engines, boilers, etc., and will be pleased to correspond with all parties who have requirements in their line.

If the Cullom Bill goes through all right and escapes a veto, it will become law on May 1. The railroad men in this city state that they will honestly observe the provisions of the bill and offer no factious opposition to it; but intend to show the public that they are just as much servants of the public as the Congressmen. This change of heart comes late, but is gratifying, nevertheless.

IGNATIUS DONNELLY is a member of the new legislature of Minnesota, and of course made himself heard. He introduced the first bill of the session; and, as might have been expected, it was a railroad bill, designed to secure free markets for grain, and the right of any one to erect an elevator of any capacity on any road, and preventing discrimination against individuals or localities.

THE bulls and bears of the Minneapolis Chamber of Commerce indulged in a regular "hurrah" on the last day of the year. They pelted each other with flour and bran until they all looked like dusty millers in very truth. The trouble with this sort of festivity has always been that one or two individuals come in for more than a fair share of the pelting, and they furnish the fun for the more fortunate boys.

BRADSTREET's of Jan. 8 manages to figure out a visible supply on Jan. 1 of 85,280,000 bushels of wheat and 14,700,000 bushels of corn. The New York Produce Exchange could find only 62,729,000 bushels of wheat and 13,783,114 bushels of corn. Pay your money and take your choice. A little discrepancy of over 20,000,000 bushels need not be a serious matter. There is a good deal of humbug about the visible supply, anyhow.

In their report the Mississippi River Commissioners say: "In our opinion, the idea that the Mississippi River can be permanently improved by contractive works alone, is purely visionary and theoretical, contradicted by experience, and not supported by any good authority. To adopt such a system is, in the opinion of the Commission, to waste public money." Other people knew that long before the Commission said it.

WILLIAM N. STURGES, universally known as "Jack" Sturges, is dead. For more than a year he was in feeble health. He was born in Saratoga, N. Y., in 1837, and accordingly was not an old man at the time of his death. He was a man of wonderful pluck and energy, and his life was checkered with ups and downs. He was rich when in the grocery business in Keokuk, Iowa, being worth over half a million dollars. In 1869 he came to Chicago and went into the grain business. He did an immense business on the Board of Trade, and is chiefly known for his connection with the great corn corner in July and August, 1874. The corner was disastrous, and Sturges was expelled from the Board for refusing to fulfill his contracts, not, however, until 1878, after four years of litigation. He finally got back in

1879. He went to Keokuk and ran the Keokuk Elevator, but became involved in trouble about warehouse receipts, his innocence being proved at last. He made many real friends, who remained such to the last.

THE Toledo Produce Exchange was not captured by the railroad lobbyists and betrayed into an expression of disapproval of the Cullom Bill. On the contrary, it expressed its belief that it was a measure of protection to shippers and producers. Further, in their resolutions they noted the curious fact that the Western exchanges that have opposed the bill are at those points where the greatest irregularities in railroad rates have existed. Sensible fellows, those Toledo boys.

THE St. Paul Board of Trade has taken somewhat extraordinary action in advising country shippers who do not want to be swindled to consign only to those who are members of the Board, and whom the Board as a body vouches for, as being honest and reputable as individuals. While there is no objection to this sort of a Pooh Bah indorsement of one's self, it is not right to cast any stigma on those who may not be members of the Board, and yet may be reputable and honest.

SOME outside papers made the faction fight for the presidency of the Chicago Board of Trade the occasion for reading the Board a lecture in the so-called attempt to repudiate the lease held for the old building from the Chamber of Commerce. The Chamber of Commerce is composed almost exclusively of Board of Trade members, and the Board itself has \$100,000 in stock in the Chamber of Commerce. As for "repudiation," it is questionable whether the Chamber of Commerce does not owe the Board of Trade.

THE season of lake navigation for 1886 has been the most remarkable and profitable for many years. Last year the earnings of few vessels plying on the lakes were sufficient to cover running expenses, whereas this year, owing to comparatively high carrying rates, caused by a brisk competition for vessel room from the start, the average net profits on the capital invested in hulls will probably foot up 30 per cent. As an unpleasant counterpart to this good result stands the loss of 75 vessels by disaster, involving a loss of \$956,000. The list of partial losses and minor mishaps brings this sum up to about \$1,500,000.

THE CINCINNATI (O.) CORRUGATING Co. have for years used as their brand the word "Superior," and claim they bend every energy to the maintenance of the verity of their brand. This is done by the closest attention to the minutest details—every sheet of iron being carefully inspected before painting, when even the smallest "pin-hole" compels rejection; by using the most improved machinery, all driven by steam power; by using none but the best metallic paint, thoroughly reground in pure linseed oil; by carrying the largest stocks of sheet-iron, thus filling all orders promptly; by furnishing inquirers at once with detailed estimates. They are reliable and abreast with the march of improvement, and only solicit a trial when you are in need of anything in their line.

THE Chicago Grain Receivers' Association elected the following officers at its yearly meeting: President, George M. Howe; vice-president, George H. Sidwell; treasurer, A. M. Henderson; secretary, H. H. Carr. Mr. Howe said the association was in a most flourishing condition; that there were ample funds in the treasury, and that no assessment for the current year would have to be made. He also called attention to the fact that the efforts to induce the Eastern railroads to use the hopper scales in the transfer of grain had proved unsuccessful. This raised the question of the right of the state to interfere in a matter of this kind, and after some further discussion the question was referred to the Committee on Weighing. A resolution was passed giving it as

the sense of the association that the inspection of corn had been too rigid.

THE *Scottish Geographical Magazine* for November has an article over the signature of M. De Lesseps, the president of the Panama Canal Company, which exhibits a lamentable ignorance of the great "canal digger" concerning the financial condition of his latest enterprise. He estimates the total cost of the canal at \$250,000,000, whereas the liabilities of the company already foot up \$287,988,700, with less than one-fourth of the work completed. Two more loans, according to a statement by M. Varilla, chief engineer of the canal, will be issued by and by, swelling the above sum to more than \$460,000,000. Whether M. De Lesseps' misstatement was made in good faith or deliberately, in any case it reminds the world that an enterprise must be in a pretty bad fix when the estimated and the actual cost of the same show such an astounding discrepancy.

THE green-eyed monster of jealousy crops out in the following paragraph from the *St. Louis Midland Industrial Gazette*.

The little city of Duluth, up in the far north, is waging a bitter war against Chicago, and is bent on wresting a great deal of the latter city's trade, commerce and manufacture. That it has succeeded within the past year or so in taking away the bulk of Chicago's grain trade is admitted on all sides. Much of the commerce of the North and Northwest that formerly found its way to Chicago is also intercepted half way. Now the citizens of Duluth, not content with the huge elevators, warehouses and stores, talk of furnaces, and a movement is on foot to erect at that place three modern blast furnaces, Bessemer plant, rail mill and everything complete with all modern improvements, having a capacity of 500 tons per day, which will cost \$1,000,000.

Well, good for Duluth; but our contemporary would have no interest in Duluth's prosperity, if it did not think that it was secured at the expense of Chicago. However, Chicago is not suffering to any great extent, except from the discrimination of the railroads.

EXPORTS OF BREADSTUFFS.

The report of the Bureau of Statistics on the exports of breadstuffs during December, issued Jan. 11, is at hand, and on the whole exhibits a very gratifying increase. The total value of breadstuffs exported during December, 1886, was \$5,026,488, against \$3,881,616 in December, 1885. The value of exports for the last six months of 1886 was over \$4,000,000 in excess of the exports during the last six months of 1885.

To particularize, the exports of wheat in December last were 2,956,126 bushels, against 670,028 bushels in the same month in 1885. The exports of corn fell from 2,984,384 bushels in December, 1885, to 1,321,809 bushels in 1886. Of barley, in the last six months of 1886 102,255 bushels were exported, against the insignificant quantity of 185 bushels in 1885. The export of oats fell from 4,289,732 bushels in the last six months of 1885 to only 135,615 bushels in the same period in 1886. The exports of rye fell from a total for the six months of 1885 of 104,966 bushels, to 74,080 bushels, nearly half of which was exported in December. The exports of oatmeal and cornmeal show an appreciable falling off compared with last year, while the amount of wheat flour exported shows a very handsome gain. And for the whole year the value of exports of breadstuffs was \$53,850,971 in 1886, against \$50,591,235 in 1885, a showing that we need not be ashamed of, considering all things.

Egater and Emslie are jointly indicted in three bills, charging them with taking 1,871 bushels of wheat and grain on Nov. 16, 1885, on Sept. 26, 1885, 2,000 bushels, and on May 23, 1884, 993 bushels. Two bills against Kennedy and Emslie charge them with theft of 1,000 bushels of wheat on Sept. 15, 1885, and 2,134 bushels on Sept. 16, 1886. Campbell and Emslie are jointly charged with taking 1,494 bushels of wheat Nov. 14, 1884. The value of the wheat is put down at 75 cents per bushel. In addition to the indictments for grand larceny, the Richmond estate, which owns the elevator, has brought suits against all the parties to recover the amount lost by the transaction.

RAILROADS AS GRAIN HANDLERS.

Some time ago Mr. P. J. Smalley presented a plan by which the railroad companies of the state might be required to receive and forward, for a reasonable compensation, the grain product along their lines on practically the same terms that govern the receipt and shipment of ordinary freight. This plan was published, with favorable comment, by the *Pioneer Press*. It appears that it is to be put in actual operation upon the Minneapolis & Pacific Road. The following is the statement of the Hon. W. D. Washburn, with reference to the policy of his new line in handling the product of the farm:

"The railroad company has gone forward and erected its own elevators and warehouses. I have never been able to see any good reason why a railroad company should not afford facilities for receiving wheat and all kinds of grain the same as they afford facilities for receiving all other classes of freight. It appears to me the only consistent thing to do. At any rate, our company has acted on that idea. We have built warehouses and elevators at every station on the line, and we propose to charge the public for receiving and handling this grain what it absolutely costs us and no more; the railroad not proposing to make profit as an elevator company, but simply to afford facilities for receiving grain and charging only the actual cost, adding this cost into its regular transportation rate. The railroad company only issues receipts, or tickets, for grain received. It has nothing whatever to do with purchases."

It appears probable that this may be the final evolution of the relation between the common carrier and the grain trade which has been such a disturbing influence in the Northwest. When the railroad companies virtually owned and operated the elevators along their lines, the complaint of monopoly was great. The abandonment of that system proved little more satisfactory. A return to first principles, with the addition of a complete separation of the business of handling grain from that of buying and selling it, is what the new departure, if successful, would mean. This method would need legislative regulation in order that the farmer might be thoroughly protected. Then, with quantity and quality carefully guaranteed, it would embody the salient features of a grain law proposed by the *Pioneer Press* some years ago, when the need of legislative action first became generally recognized. We have nothing to add, in commenting upon the plan of the Minneapolis & Pacific, to what was said originally of the suggestion as offered by Mr. Smalley:

"Serious consideration will show the necessity of inspection at each elevator, and of a weighing and cleaning apparatus in order to definitely fix the grade of the wheat before it goes into the bin. Then the railroad company could afford to give the purchaser a receipt for a definite quantity of a definite grade of wheat, which ticket could be sold at St. Paul, Minneapolis, Duluth or elsewhere, or the farmer could consign his own wheat on such ticket to any market in the state. With these amendments we do not see any reason why the railroad companies should not be required to furnish storage for wheat, just as they do for all other kinds of freight, nor why that plan is not the simplest and most economical of all that have been tried."—*Pioneer Press*.

"PUTS AND CALLS."

The system of speculative trading, known as "puts" and "calls," long in vogue in Eastern grain centers, has been recently frowned on by the Chicago Board of Trade, in an effort to improve the business morals and add dignity to the conduct of the members of that institution. Trading in "puts" and "calls" is now termed a misdemeanor by the rules of the above organization, and members indulging therein are liable to punishment. Like some other regulations of the Chicago Grain Board and similar bodies, it may, perhaps, not be rigidly enforced. If a considerable number desire to exercise their talents in this direction, it is far from certain that refusing to give the practice official sanction will result in discontinuing it. That the "put and call" business has had a large following among Eastern traders, speculators, and brokers is evidenced by the frequent mention made of it during late years and the passage of prohibitory resolutions there by a mercantile body. While "puts" and "calls" have been dealt in here somewhat extensively for a year or two past, the business has been conducted in such a quiet and informal way that few who are not regular habitués on 'Change are familiar with this business. A brief explanation, therefore, may be of interest. For example, buyer season wheat is selling at \$1.55 to-day. A believes wheat will be lower to-morrow, and pays \$5 to B for the "privilege" of delivering to the latter, inside of twenty-four hours, a contract for 100 tons of wheat, buyer season, at a fixed price, say \$1.54½. This is termed a "put." If the market drops, say to \$1.54, A buys and delivers, pocketing the difference, which in this instance would be \$5 per 100 ton contract, or quarter of a cent per cental. The \$5 paid to B reduces the price for him to \$1.54½; so that A has to purchase under this figure to make a profit. If the market advances there is no delivery, A simply losing and B gaining \$5, which ends the transaction. C has faith in the market advancing, and gives \$2.50, equivalent to an eighth of a cent per cental, for the privilege of demanding a contract the following day at \$1.55½, making it cost him \$1.55½. If the market declines no demand is made for the contract, but if the price goes above \$1.55½, C sells, and then to cover his sale obtains the contract previously bargained for. This is what is designated a "call," in contrast to a "put." What is known as Call Board business is different, contracts being bought and

sold for the delivery of grain, at buyers' or sellers' option as the case may be, and on each 100-ton contract a marginal deposit of \$200 or 10 cents per cental is required alike from buyers and sellers. The Board has a caller who announces the options desired, the prices bid and asked, and when sales are effected the names of buyer and seller. Thus the term "call" is applied to the Board. Then on buyers' contracts the holder may at any time demand delivery of grain by giving five days' notice, which is denominated a call, but is distinct in meaning from the same word when used in the phrase "puts and calls." One is a call for actual grain, the other is a call for a contract. Before and after the session of the Call Board the put and call bartering is made a sort of a side-show or auxiliary. One of its chief attractions is that it permits of ventures on small capital, being popular with brokers of small resources, but is by no means confined, at least in San Francisco, to operators of limited capital. It has not interfered here, apparently, with the regular dealings in contracts; but the informality attending it and the danger of its increasing curb-stone or outside business, to the detriment of the volume of transactions in speculative contracts given out under the auspices of grain exchanges, may have something to do with the effort of the Chicago Board of Trade to bring it into disrepute. Many close observers, familiar with the workings of the two styles of taking risks, fail to see any great difference other than in the amount of money involved, the practical results being much the same. Still, any action which succeeds in restricting and discouraging, by keeping within narrower bounds much of the unduly reckless speculation of the day, is to that extent to be commended.—*Country Merchant*.

GRAIN GROWING BUSINESS NOT YET RUINED.

A few years since it was predicted that it would only be a question of a short time when the farmers of the United States would be compelled to abandon wheat growing for export, in consequence of competition from newly developed regions; notably India and the Canadian Northwest. Some have not hesitated to predict that not only would this competition prove disastrous to our export trade in wheat, but that prices would be so low abroad that this cereal could even be imported at lower figures than it could be profitably grown here, thus depriving farmers of the opportunity of supplying the home market. Early this season, when No. 1 wheat in the San Francisco market dropped down to \$1.20, and there were free sellers at \$1.17 for delivery within 1886, one merchant of long experience in the grain shipping business, asserted, evidently in good faith, that for the next five years there would not be a season in which good wheat would not sell at times as low as \$1 per cental, or a cent per pound. Several enthusiasts of the same order paid \$500 in July last for the privilege of delivering 1,000 tons of wheat within the year at \$1.15; making the actual delivery price \$1.12½. To have made \$500 on the speculation, not an exorbitant profit on the risk, it would have been necessary to secure the wheat at \$1.10. It is perhaps superfluous to state that the delivery in question was never made, the more sanguine buyer being troubled only in this transaction to the extent of adding \$500 to his bank account.

During the past few months there has been a very sudden and complete disappearance of the above mentioned prediction in newspapers, or in business circles, although the conditions which were to have brought about the radical revolution in the wheat trade have not been appreciably altered. There are no indications of any falling off of late years in the cultivation of wheat in India or Manitoba. Neither is there evidence that wheat growing in this country has been abandoned to any considerable extent; certainly not in the newly settled portions suitable for wheat culture, and which it was thought by many would further depress the industry. The crop of the United States in 1886 shows an increase of nearly 100,000,000 bushels over that of 1885, and has only been twice exceeded in the past six years. In spite of the increased crop in America, the unprecedentedly low prices last summer, and with India, Manitoba, and all other wheat growing countries still in the field as producers, values have advanced fully 25 per cent, since the opening of the season, and are now higher than at periods in some former years when there was less fear entertained of ruinous competition. We have never echoed the sentiment that the wheat industry of this country was in serious danger of being crippled by any other portion of the globe. America remains the main dependence for bread of a large portion of Europe, and will, it is probable, continue so for many years. India, Asia Minor, Syria, Persia, and Southeastern Asia produced the last year only about 56,000,000 bushels above home requirements; Canada, including Manitoba, is credited with an available stock for export of less than 6,000,000 bushels. In contrast with this, the United States can furnish foreign countries the current season fully 120,000,000 bushels, nearly 100,000,000 bushels of which is surplus of the 1886 crop. Should wheat growing be extensively abandoned in America, it is very evident that bread eating would have to be greatly curtailed by many of the nations of the world. With a succession of prosperous seasons in both hemispheres, there will naturally be times of temporarily excessive supplies; but there is little likelihood of any great glut for many years without interruption, as more or less loss must be occasionally experienced from crop failure; as last winter in Australia, and last summer in a large portion of Europe, and the increase in acreage in some quarters is not likely to much more than keep pace with the decreased area and the lighter yield per acre in other sec-

tions. Should the question resolve itself into one of mere competition, it has been fairly demonstrated that the industry would have to succumb elsewhere. India not excepted, as soon as in this country.—*Country Merchant.*

Fires, Casualties, Etc.

Clark W. Mills, grain broker, New York, N. Y., is dead.

The brewery of John Sommerfeld, at Baltimore, Md., has been burned.

The distillery at Terre Haute, Ind., has burned, causing a loss of \$100,000.

Ernst Bros' Brewery, in this city, was burned Jan. 7, causing a loss of \$45,000.

Geo. Richards & Co., flour and grain dealers of Union, Conn., were burned out.

J. P. Weeke's elevator at Kinsley, Kan., was burned last month. Loss \$7,000; insurance \$5,000.

The elevator at Osage Mission, Kan., owned by Benedict & Co., burned recently, entailing a loss of \$12,000.

The brewery of Maier & Zobelein, at Los Angeles, Cal., was recently damaged by fire to the extent of \$1,000.

The elevator of Warren Warner, at Cincinnati, Ohio, was recently destroyed by fire. Loss \$7,000; insured for \$4,270.

S. A. Van Horn & Co.'s grain warehouse at Lawrenceburg, Ind., has been burned. Loss \$10,000; insurance \$4,000.

The large grain elevator of Freibin & Arnold, at Jamestown, Ohio, was badly damaged by fire some time last month.

Fire has destroyed the elevator of the Standard Cattle Co., near Fremont, Dodge county, Neb. Loss \$20,000. It will be rebuilt.

Theodore Smith, engineer in A. G. Scott & Son's elevator at Axtell, Neb., got caught in a line shaft on Jan. 4 and was horribly mangled.

The elevator of M. G. Goode & Co., of Marengo, Iowa, was burned on the night of the 16th ult., with its contents. Loss \$3,500; well insured.

The whole side of J. C. Runge & Co.'s elevator at Mulvane, Kan., fell out recently, letting several hundred bushels of grain out to the ground.

The flouring mill and grain elevator of Newton House, at Elwood, Ind., were wrecked by the explosion of the boiler on Jan. 4. The loss was \$15,000.

The establishment of Portwood & Cowles, grain dealers at Terrell, Tex., was burned a few days since, involving a loss of \$2,800, with an insurance of \$1,200.

Thos. Burke, a grain thief, who has been stealing grain in the vicinity of Lafayette, Ind., has been bagged by the officers of the law. He proved to be a horse thief as well.

Wm. H. Newman, a prominent grain commission merchant, and one of the charter members of the New York Produce Exchange, died at his home in that city of pneumonia.

F. E. Wilson, who for some time has looked after the Nebraska business of Edw. P. Allis & Co., of Milwaukee, took \$1,900 of the firm's money and a woman, and disappeared.

Cross Bros' elevator at Campbell, Minn., was burned Jan. 10 with 15,000 bushels of wheat. The origin of the fire could not be ascertained. The elevator had a capacity for 30,000 bushels.

The elevator of the Northern Pacific Elevator Co., at Verdale, Minn., was burned Jan. 5, the fire catching from the smoke-stack. The house had a capacity of 25,000 bushels, and was well filled.

At Aspinwall, Iowa, a man was found dead in a car of wheat. The body was still warm. A young man named Ted Stebbins was arrested, and confessed to killing the man with a car-pin and robbing him of sixty-nine dollars. The murdered man's name is Carson. Stebbins is eighteen years old.

Charles N. Wheeler, of Peoria, who was for several years engaged in the grain exchange or bucket-shop with Charles Hagan, has been arrested on a charge of stealing \$800 from a Chicago firm. Wheeler was arrested in New Haven, Conn., on a requisition from Gov. Oglesby.

The foundry of E. P. Allis & Co., the well-known Milwaukee machinery builders, was burned on the night of Jan. 6. The loss was between \$50,000 and \$100,000; fully covered by insurance. The fire will not interfere with the operations of the firm, as all the patterns were saved.

Chas. Peterson, an employe at the St. Anthony Elevator, Minneapolis, Minn., was found near the elevator on the night of Jan. 5 with both feet badly frozen. He was taken to the St. Barnabas Hospital, where the frozen members were amputated. Mr. Peterson is a single man, and has recently arrived from Sweden.

Nathan D. Sullivan, a well-known grain inspector of this city, died Jan. 13 at his residence, No. 293 West Jackson street, of typhoid fever. He was appointed inspector sixteen years ago by the Hon. W. H. Harper, then

chief of the department, and has been in the service ever since. He was highly esteemed for his ability and integrity.

Charles Moffet, a traveling agent for E. P. Allis & Co., of Milwaukee, committed suicide by shooting himself, at Uniontown, Pa., on Jan. 8. He was about 35 years of age and single, and his suicide is a mystery to his friends.

On Jan. 5 the north end of the new addition to the Pillsbury elevator gave way and spilled about 50,000 bushels of wheat over the Manitoba tracks. The addition had been completed a few days, and it had been noticed since the wheat had been put in that the side was bulging out, and it had been feared that the pressure of the wheat would prove too great. A scheme for removing the wheat by means of a conveyor had been arranged and the work begun; but shortly before the time spoken of above a cracking noise was heard, and all the workmen were warned to get out of the way before the crash came. The grain spilled was all reloaded in cars without loss, no one was hurt by the accident, and the damage to the building only amounted to between \$1,000 and \$1,500.

ELEVATOR CAPACITY OF MINNEAPOLIS.

The pre-eminent importance of Minneapolis as a primary wheat market increases year by year, and the natural result is a steady and substantial increase in the elevator capacity of the city. The past year has been fruitful in this respect. The city's elevator capacity has been increased by about 3,300,000 bushels, according to the figures of the *Northwestern Miller*. At the close of last year the regular elevator capacity was 8,175,000, and including the transfer and mill storage was 9,863,000. The grand total at the close of 1886 is 13,322,000. There have been five elevators erected, with an aggregate capacity of 2,920,000 bushels. Three large additions to old elevators have been put up, increasing the capacity by 335,000 bushels. The St. Anthony Elevator Company built two very large elevators near the southeast city limits, with a combined capacity of 2,350,000 bushels. The Minneapolis Union Elevator Company built a 500,000-bushel annex to its big elevator in the same vicinity. Pillsbury & Co. have put up a 200,000-bushel addition to their Tenth avenue southeast elevator. D. R. Putnam built a 70,000-bushel elevator, the Sowle Elevator Company an 85,000-bushel addition, and Cargill & Bagley a 50,000-bushel addition. The following is the full list of the elevators of the city at date, as given by the *Miller*:

Operated by	Elevator.	Capacity. Bushels.
Minneapolis Elevator Co.	A 1*	800,000
Minneapolis Elevator Co.	A 2*	1,250,000
C. M. St. P. & M. Ry.	B	900,000
C. M. St. P. & M. Ry.	B Annex	400,000
C. M. St. P. & M. Ry.	B Annex	480,000
H. W. Pratt & Co.	C1	140,000
Van Dusen Elevator Co.	D*	600,000
Van Dusen Elevator Co.	D Annex*	400,000
Sowle Elevator Co.	E 1	195,000
Sowle Elevator Co.	E 2*	85,000
C. A. Pillsbury & Co.	Pillsbury	650,000
St. Anthony & Dak. El. Co.	St. Anthony A*	500,000
St. Anthony & Dak. El. Co.	St. Anthony B*	1,100,000
St. Anthony & Dak. El. Co.	St. Anthony Annex*	750,000
D. R. Putnam	K1	70,000
Street Railway Co.	Lowry	130,000
F. J. Austin & Co.	Central*	300,000
Minneapolis Union El. Co.	Union*	1,900,000
Minneapolis Union El. Co.	Union—two annexes*	650,000
Bagley & Cargill	Bagley & Cargill	150,000
N-W. Elevator Co.	Transfer	550,000
N-W. Elevator Co.	Transfer Annex	500,000
Total		12,500,000
Total storage mills		832,000
Grand total		13,332,000

*Public elevators under state grain law.
†Private houses.

Plans are already maturing for still further elevator extension. The St. Anthony Company will build next season a 1,100,000-bushel annex to its East Side system, and the Van Dusen Company has determined on a 750,000-bushel annex to elevator "D." Other enterprises are likely to crop out as the year opens.

The increase in the storage facilities along the lines of the various railway systems has been very large. The following comparative summary shows the total capacity at the close of last year and this year's figures as reported by the general freight agents and published in the paper mentioned:

	1886.	1885.
St. Paul, Minn. & Man.	1,011,900	11,481,000
Chicago, Milwaukee & St. Paul	12,187,900	8,984,000
Northern Pacific	5,283,500	4,144,500
Chicago & Northwestern	5,771,000	4,895,700
Minneapolis & St. Louis	2,662,500	2,307,000
Chicago, St. Paul, Minneapolis & O.	1,214,200	1,041,800
Minneapolis & Pacific	507,000	
Minnesota & Northwestern	213,200	209,000
St. Paul & Duluth	200,500	200,500
Totals	41,051,700	33,304,000

At the terminal points the present storage capacity is as follows:

Minneapolis	13,332,000
Duluth and West Superior	10,250,000
St. Paul	1,560,000
Total	25,142,000

The latter is an increase of 4,159,000 bushels over last year on terminal capacity, and the grand total 66,193,700 bushels; against 54,462,400 for 1885.—*Pioneer Press.*

THE EXCHANGES.

Owen Fergusson and A. D. Thompson are mentioned for the presidency of the Duluth Board of Trade.

The Cincinnati Chamber of Commerce will cost, it is thought, about \$600,000. The contract has been let.

Great excitement was caused on the Chicago Board of Trade last week by the explosion of the cap of a manhole. Some thought that the anarchists had carried out their threat to blow the building up.

The Omaha Board of Trade met in its rooms in the Exposition building Monday afternoon and elected the following directors for the ensuing year: Max Meyer, John Evans, H. G. Clark, John A. Wakefield, C. F. Goodman, N. Hellman and Peter E. Iler.

The Toronto Board of Trade numbers 911 members. The adoption of a system of mutual insurance has done much to cause this rapid increase of membership, and to knit the Board together by ties of mutual interest. The admission fee is now \$100. It is in contemplation to increase it to \$500 when the membership has increased to 1,000, as it very soon will. The treasurer will probably have nearly \$2,500 surplus at the close of this year. The organization of a Real Estate Exchange, in connection with the Board of Trade, is contemplated.

The Chicago Board of Trade elected the following officers at the annual election Jan. 3: President, A. M. Wright; Second Vice-President, W. S. Seaverns; Five directors, H. G. Gaylord, Gilbert Montague, A. M. Henderson, Z. P. Brosseau, P. J. McCleary; Arbitration Committee, R. G. Chandler, Adolph Seckel, H. F. Dousman, C. T. Haughey and Nathan Smith. John R. Hodson was elected a member of the committee vice S. B. Budd deceased. Committee on Appeals, George Fritz, John B. Rogan, E. B. Strong, D. E. Sibley, J. B. Dutch.

The receipts of the Chicago Board of Trade for 1886 were \$271,875, and the expenditures \$219,058, leaving a balance of cash on hand of \$55,077. Commenting on this statement, the report of the directors says that all contracts for the construction of the building have now been settled in full except a bill from the Hallowell Granite Co., and that is in process of adjustment. Of the cash on hand, \$15,000 has been set aside to pay rent which may be due to the Chamber of Commerce at the close of the fiscal year. The annual assessment upon members for 1887 is fixed at \$60. This, with other expected revenues, will enable the Board to meet all current expenses and pay all interest on the bonded debt due for the current year.

DAKOTA FARMERS AND THE GRAIN QUESTION.

At the last day's session of the Dakota Farmers' Alliance the following report in regard to free markets for grain was submitted and adopted:

Your committee to whom was referred the subject of free marketing of grain report that this alliance, having already decided to urge the passage of a law permitting the erection and maintenance of flat warehouses as well as elevators at the several railroad stations or market places within the Territory, the formation of the necessary bill or amendment properly belongs to the legislative committee. We heartily approve of the recommendation of the president of this alliance and of the railroad commissioner in the matter of making what is known as elevator receipts negotiable, and recommend that the legislative committee be instructed to memorialize the legislature on the subject. Your committee recommends that the legislative committee recommend the passage of a law requiring the grading of all grain received at public warehouses or elevators, said grading or inspection to correspond with that adopted by the railroad and warehouse commission of Minnesota, in order that the proposed negotiable receipts may bear the same grade as the market in which they are likely to be sold. We do not approve of the resolution requiring inspection and weights at the several market places in the territory, the first requiring too much machinery to successfully carry out, as well as for the reason that our products are marketed outside the territory and amenable to other state regulations; and as to the latter—i. e., weights—there is already a statutory provision that if enforced would secure the desired result. In the opinion of this committee, in order to secure a free market the farmers of Dakota must be practically independent of railways and elevators, securing from the former the same accommodations and rates as are given to elevators, growing their crops themselves, thereby saving carrying charges on grain by and for which elevators are built and maintained, and controlling in a measure the "visible supply," on which markets are based or manipulated, and securing at all times the best reward for his labor and capital.

An amendment to the articles of incorporation of the St. Anthony Elevator Co., Minneapolis, Minn., was filed with the Secretary of State Jan. 6. It provides for an increase of \$40,000 in the capital stock, making the whole amount \$240,000. The indebtedness or liabilities to which the corporation shall be subject is extended from \$100,000 to \$500,000.



Senator Edmunds has introduced a bill to incorporate the Maritime Canal Company of Nicaragua.

Henry Willis, of Battle Creek, Mich., who first mooted the project of a ship canal across Michigan from lake to lake, died Dec. 20. Mr. Willis was 85 years of age.

De Lesseps declares that the Panama Canal will be ready for traffic in 1889. Somebody must be doing some tall lying about that canal, so contradictory are the statements made regarding it.

The Suez Canal Company and the Egyptian government have agreed to the widening of the Suez Canal. From Port Said to the Better Lakes the canal will be forty-four meters wide, and from there to Suez sixty-five meters.

Col. Baughman, president of the Chesapeake & Ohio Canal, in his annual report says that if the canal is continued it must be aided by the state and the general government. Maryland has sunk over \$7,000,000 in the canal, and the District of Columbia and the United States have lost \$2,750,000 in it.

Should the river and harbor bill be reached in the House before the committee shall be ready to proceed with Hennepin, the House will not be asked to delay the consideration of the bill. In that event the friends of Hennepin would carry their case to the Senate. Any estimate as to the probable fate of the measure at this session is necessarily speculative.

It is of the utmost importance to the state at large that New York should treat its canals as its most precious possession. This is a proposition which, we submit, all intelligent citizens of New York, no matter where they live, will approve of and act upon. The new legislature is said to be of exceptional intelligence. That fact gives the true friends of the canal their highest hope.—*Buffalo Express*.

Has Chicago and other large cities in the interior no rights which the East cares to consider? The people of the great West pay the largest proportion toward the maintenance of the government, and if the East is to be put in a state of protection, they will expect that the West shall be likewise put in a measurable condition of safety. How is this to be accomplished? In the fewest words it may be stated to be in the construction of the Hennepin Canal.—*Ev.*

Russia has concluded arrangements for obtaining from the Hersents of Paris a loan of 75,000,000 francs. The money is to be expended in constructing a canal from the eastern extremity of the Gulf of Perekop in the Black Sea across the neck of land joining the Crimea to the main land to the Sea of Azor, in order to afford a direct water route from the river Don to the Black Sea. The railways adjacent to the new water route will be put in direct communication with it.

A meeting of the executive committee of the Canal Improvement Union was held Dec. 23 in the rooms of the Board of Trade and Transportation, New York City, Hon. O. B. Potter in the chair, for the purpose of hearing the report of their sub-committee which was recently appointed to draft a bill for introduction in the legislature at the approaching session. The committee was in conference upon the subject the entire afternoon, and the bill which has been the subject of several preliminary conferences both in Albany and New York was adopted as it will be introduced in the legislature next week. The committee deemed it imperative that the bill for improvement should make a new appropriation of at least \$500,000, the sum demanded by the Syracuse convention of August last. The committee also decided that the reappropriation of \$113,000—the unexpended balances of previous appropriations for canal maintenance—also of the unexpended balance of \$29,000, from the lock bill of last legislature and the Forestport dam should be provided for in separate bills. Of the new appropriation of \$500,000, the bill apportions \$400,000 for lengthening one tier of eight or more locks west of Syracuse and one tier of eight or more locks east of Syracuse on the Erie Canal, said locks to be designated by the superintendent of public works and state engineer and surveyor so as to secure the best possible results; \$85,000 for deepening the Champlain Canal, and \$15,000 to complete the improvements now being made on the Oswego Canal.

A person writing from Morristown, N. J., says: That old feature of Morris county life in winter has just begun, namely, the squatting of canal people in canal boats for miles along the Morris Canal. The habitations consist of canal-boats frozen up and half-submerged in the canal, with a roof of snow and ice to keep out the cold and a sheet of ice about them for a piazza. Here men and women live from December until late in March, in order to save rent. The structures look like mounds, and the dwellers disappear out of sight much as prairie dogs out West. The women have a costume of their own, consisting principally of a thick red skirt and a blue nubia. These canal houses stretch in a dozen directions. They may be found on the level near Bloomfield, up above Rockaway, at Port Oram and near Montgomery and Brookdale. The canalers keep away from the villages, because they are objects of attack by boys. A visit to the interior of one of these canal houses, revealed quite a cosy apartment. It is no trouble to keep warm.

Leaves and branches of trees are piled on top of the boat and the snow and ice accumulates in sufficient quantities to prevent the blasts from penetrating the inside. The women are mostly neat and take pride in keeping their rooms in order. There are wood fires in the kitchen, the smoke from which ascends through stove pipes that stretch up through roof and snow. The appearance at a distance of these impromptu chimneys of snow mounds is decidedly odd.

THE MOVEMENT OF GRAIN.

The report of the Senate committee on transportation routes to the seaboard on the subject of railroad freights in the United States and other countries makes 500 pages of printed matter and contains many valuable tables and much information on the subject of transportation, gathered from nearly every country in the world. The first table presented indicates the progress of the United States for a generation. Thirty-three years ago we produced 100,000,000 bushels of wheat and about 600,000,000 bushels of corn. Twice in recent years we have reached 500,000,000 bushels of wheat, and in 1885 the corn crop reached 1,800,000,000 bushels—a fivefold increase in wheat and a threefold increase in corn. The increase in other cereals has not been so rapid. In the export trade wheat ranks first in value, and in fifty-eight years has added \$2,600,000,000 to the value of our national production, a sum equivalent to four times the value of exported corn and commeal during the same period.

The average annual receipts of grain in Portland (Me.), New Orleans, Detroit, Cleveland and Pittsburgh have remained stationary throughout the two periods between 1866 and 1873, and between 1874 and 1883. Boston, New York, Philadelphia, San Francisco, Toledo, Erie, St. Louis and Peoria have, speaking roundly, doubled their average receipts. Baltimore, Louisville and Duluth have increased nearly threefold, while the average annual receipts at Kansas City have increased ninefold. A marked increase is noticeable in Milwaukee and Buffalo, but there has been a decided decrease in the receipts of Oswego and Ogdensburg.

The report shows that the difference in the prices of corn between the Atlantic ports and the lake ports has steadily declined from 21 cents per bushel in 1873 to 10 cents per bushel in 1883; between the Atlantic ports and the Western river ports, from 19 cents in 1873 to 11 cents in 1883. This in a measure shows the tendency of freight rates to decrease.

Regarding the question of long and short hauls the committee came to the conclusion that local freight rates "are evidently levied on the somewhat general principle of what the traffic will bear." The report says the cost of transporting a bushel of wheat is more nearly equitable in Massachusetts than in any other state represented, although there it finds a lesser rate for thirty-six miles than for fifteen. The report continues:

In Pennsylvania local rates are higher than in Massachusetts. In Ohio the rate is about the same—on sixty miles as it is on ninety, while the long haul of 216 miles, instead of being relatively less, is relatively greater. In Massachusetts in 1883 it cost 4.6 cents to transport a bushel of wheat sixty-four miles; the cost in Connecticut for transporting the same quantity of grain sixty-two miles was 7 cents; in Pennsylvania, sixty miles, 4.2 cents, and in Ohio, sixty miles, 5 cents. Of course the conditions may not have been the same. Farther west we find Kansas paying 4.2 cents per bushel for transporting a bushel of wheat forty miles, and Massachusetts, for the same service, thirty-six miles, 2.2 cents, while California pays 5.3 cents per bushel for fifty miles.

The committee finds that there has not been the same reduction in local rates as in through rates; in a majority of cases the local rates have not been reduced at all. In Massachusetts and Connecticut rates have steadily declined since 1874. In Ohio they declined from 2.446 cents per ton per mile in 1868 to .8750 of a cent in 1883. In Michigan the average rate per ton per mile in 1874 was 1.37 cents, and in 1882 it had declined to 1.09 cents per ton per mile. On the principal railroads of Iowa, Wisconsin, Missouri, Minnesota, Nebraska and California there has also been considerable decrease since 1874.

Turning to foreign countries, the committee finds that during the seven years from 1836 to 1842, inclusive, the United States supplied less than 1 per cent. of the wheat imported into the United Kingdom; in the period from 1843 to 1882, inclusive, it supplied nearly 54 per cent; from less than 1,000,000 bushels it increased to about 503,000,000 bushels, or about two-thirds the total wheat exported from the United States during the latter period. The committee reproduces a table from the "Windom report," showing the amount of wheat, including flour, imported into the United Kingdom from 1860 to 1873, inclusive, and adds thereto a table of its own, showing the same facts from 1873 to 1883, inclusive. Commenting on this table, the committee says:

An examination of the table shows that Russia still retains the second position, and Germany the third; but the rapid change in eleven years of British India from thirteenth position to the fourth is the most noticeable feature of the summary. In the next decade Germany will be practically out of the race, and it is more than probable that India will contest with the United States for the first position.

One of the most important features of the report is the showing in tabular form of the prices of wheat for a series of years in the principal countries of the world. The average yearly prices of wheat was lowest in India, ranging from 85 cents per bushel at Calcutta to \$1.02 at Bombay, between 1878 and 1883. Russia comes next, the

average for the decade being \$1.28 per bushel at Warsaw, \$1.17 at St. Petersburg, and \$1.15 at Odessa. Austria ranks third in the following order: Buda Pesth, \$1.18 per bushel; Vienna, \$1.29; Trieste, \$1.36; and Prague, \$1.38. The average price of wheat at Algiers was for the entire period covered in the inquiry \$1.28 per bushel; at Smyrna, \$1.29; and at Beirut, \$1.41. In Germany Bremen enjoys the lowest price, \$1.36 per bushel; Stettin, \$1.70; Aachen, \$1.60; Cologne, \$1.50; Breslau, \$1.49; Leipsic, \$1.42; Stuttgart, \$1.45. The average price at the principal grain port of England was \$1.50. In France, Rouen and Nantes are the cheapest wheat ports, the average prices being \$1.48 and \$1.50 per bushel respectively, while Bordeaux reaches \$1.54, and Marseilles \$1.61.

Commenting on the steady decline in ocean freight rates from the most important and nearest ports of British India, the report says:

Should this tendency continue it will not be long before the cost of carrying wheat from India to continental Europe and the United Kingdom will be as low as between the Atlantic ports and those markets.



Late advices from Australia are favorable to a good wheat harvest.

The wheat harvest in Victoria is 12,000,000 bushels, an average of 12 bushels per acre. The exportable excess is 150,000 tons, or 60,000 tons over that of the preceding year.

Joseph and Charles Shurger, extensive corn merchants and millers, of Birmingham and Gloucester, have summoned a meeting of their creditors. Liabilities estimated at £150,000.

The slight rise in the price of grain, which is ascribed to the vague expectation of war in Europe, may be checked by the announcement that Russia is beginning to export for the first time an excellent quality of grain from the Caucasus.

An item from Paris, France, says: "The Ministerial crisis is over, but it is impossible to say when the grain duty question will be decided; of the eleven members of the new Ministry it is interesting to note that four are free traders and seven protectionists."

In consequence of the closing of Peruvian ports against vessels from Chili, the wheat supply from that country has ceased, and in order to meet the demand for wheat the municipality has been authorized to take steps to have the necessary supply brought from California.

From Australia there are virtually no offers of new wheat, and although the crops are better than the very deficient result of last year, it is evident that Australian supplies in the spring and summer months will not be so important a factor as in some previous years.

M. Lockroy, Minister of Commerce, announces that wheat of excellent quality and superior weight has been exported for the first time by Russia from the Caucasus. Large cargoes of this wheat, M. Lockroy says, have been sent to Odessa, across the Black Sea from the ports of Poti and Batoum, destined for the Adriatic and the English channel.

The Russian Baltic ports are now closed by ice, so that grain shipments are at an end for the season; from the Southern ports, too, there is still very little shipping for the U. K., and according to last advices from Odessa, holders were extravagant in their pretensions, and stocks, in the absence of any fresh supplies of importance, were getting very low, consisting principally of secondary qualities of Azima wheat and of maize. Thus, there is every prospect of Russian supplies, like those from India, remaining small during the next few months.

A Melbourne circular says the wheat crop promises to be a six-bushel average in South Australia and is a complete failure in the Queensland district, the rust having destroyed all hope of a yield. In the north of Australia the crop will run from 35 to 40 bushels to the acre on a small area of irrigated land, while on dry land the yield will be only about four bushels to the acre. This is an enormous difference, and may well be supposed to furnish a powerful argument in favor of the artificial watering which has already worked such wonders in the Rocky Mountain districts of this country and the further West. The uncertainty of the rainfall in Australia appears to be the great drawback of that country to the agriculturist.

The *Mark Lane Express* is very strongly advocating a protective duty on imports of foreign wheat and flour, claiming it to be the only hope for British farmers. Its leading editorial in the issue of Dec. 27 says: "Farmers, as a rule, are worse off than they were a year ago, and there does not appear to be any nearer prospect of legislative assistance from the government than there was then. Without that we fail entirely to see where the remedy is to come from in time to save the present generation of farmers from absolute ruin, and the agricultural interest from decay. We trust that more energetic efforts will be made by farmers to force the matter on the attention of the legislators and make it plain to consumers that they can not be fed at a loss."

THE LAW.

Regulation of Commerce.

A state statute prohibiting corporations engaged in transporting goods or passengers between different states from limiting their liability as common carriers by contract is not a regulation of commerce among the states, according to the decision of the Iowa Supreme Court in the case of *Hart vs. Chicago & Northwestern Railway Company*.

Sale of Wheat Deposited.

A company operating an elevator received wheat on deposit and also purchased wheat on its own account. The wheat deposited and the wheat purchased were mingled in common bins, and publicly sold and shipped from day to day, with the knowledge of the depositors. The Supreme Court of Indiana held (*Lagrange et al. vs. Witherspoon et al.*) that, under the circumstances, the elevator company was clothed with an apparent title and right to sell the wheat, and that those who purchased wheat from them in good faith and in the usual course of business would be entitled to hold it as against the depositors.

Grain Options.

No recovery can be had on a promissory note executed in the state of Illinois, where the consideration on which it is based arises from option deals in grain, even though the note may be owned and held by an innocent *bona fide* holder. Where a promissory note was made by one H. payable to the order of his wife, who thereafter, before the delivery of the note, signed the following indorsement: "Pay to the order of P. For value received, I hereby charge my separate estate with payment of within note," and there was no protest or notice of non-payment of the note: held, in an action seeking to charge the wife as joint maker, that her liability was simply that of an indorser.—*Hosford vs. Hotchkiss*, 27 Fed. Reps., 285.

Storing Grain in Elevator.

A factor to whom wheat is consigned for storage in an elevator and for sale, may, in the absence of particular instructions, store it in a mass with other wheat of the same grade and quality. A factor is not responsible to his principal by reason of the established grades of grain being different in the market where he is to sell from the grades in other places. Where a factor has made large advances to his principal upon the property consigned for sale, and the property becomes doubtful security for his reimbursement, and the principal refuses or neglects to comply with his reasonable demand to pay or secure him for such advance, the factor may, after reasonable notice and with reasonable discretion, sell the property, although directed by the principal to hold it longer. Order refusing new trial affirmed.—*Davis vs. Kobe*, Supreme Court of Minnesota.

Decision on Corners.

James R. Keene, N. G. Miller, and Washington Butcher's Sons in December, 1880, formed a pool to advance the price of lard, and employed E. A. Kent & Co., of New York City, and Poole, Kent & Co., of Chicago, as brokers for the purchase and sale of the lard. It is said that a small fortune was realized. The members of the pool charged that their brokers had defrauded them by making fictitious purchases and sales. Keene sued Kent and others in the supreme court to recover his share of the profits of the pool. They interposed the defense that the transactions were gambling, and that the law would not force them to account. Judge Daniels, of the general term of the Supreme Court of New York, has rendered his opinion in the matter, reversing the opinion of the court below, which directed the brokers to file a bill of particulars of the pool transactions. He holds: The defense's interpretation is valid and the law does not sanction that form of gambling. Combinations to keep articles of food or other necessities of the market with the view of getting higher prices are unlawful conspiracies, punishable as a crime. When successfully carried out, the effect would be to impose an additional burden on the public. It is little less than robbery, understood by law. There are no legal means to force a division of the plunder. Keene has no right to expect that the court will interpose its authority in his behalf to enforce that well-known principle of honor upon which his alleged rights must be successfully dependent.

The Louisville Bucket Shop Case.

The Kentucky Court of Appeals has decided the "bucket shop" case from Louisville—*A. H. Smith vs. The Western Union Telegraph Co.* Smith alleged in substance that he was owner and proprietor of the Louisville Cotton, Stock, and Provision Exchange, that he was a merchant, and his business consisted in buying and selling grain, provisions, and other merchandise. In order to enable him to carry on a business successfully and to compete with other persons engaged in a similar business, it was absolutely necessary that he should be promptly and

constantly informed of the prices of such commodities in the markets of Chicago and New York. The Western Union Telegraph Co. had for years past combined with its regular business that of collecting market reports in the leading centers, the principal market of which for grain was Chicago, and to facilitate the distribution of this report to its customers it placed in their offices a wire and printing machine called "a ticker." Contracts were entered into between the appellant and appellee, but appellee threatened afterward to cease to furnish appellant with said market reports unless he would sign a contract with a clause in it to give appellee all of his message business at the regular message rates. Smith refused to do this, and the ticker was taken out of his office, whereupon he sued out a temporary injunction, which was afterward dissolved by the lower court. On appeal, Judge Bennett, in the opinion of the court, recites at length the character of the business done by a "bucket shop," and says the proprietor is really no merchant, actually engaged in buying and selling grain and other commodities, but is engaged, instead, in "a species of gambling as well defined and as reprehensible as that of keeping a faro bank or dice machine, which is therefore illegal and contrary to public policy. It is for the sake of law and the best interests of society that we relieve the appellee from continuing to furnish appellant the reports. The judgment of the lower court in dissolving the injunction is affirmed and the petition dismissed."

SOMETHING ABOUT GRAIN HANDLING.

The *Tribune* will not through silence be contributory to any oversight by the legislature of Gov. McGill's most important recommendation touching the grain laws. We agree with him that railroad companies ought to be required to receive and forward grain as they receive and forward other commodities, and that they ought to provide warehouses at all stations for its reception. In spite of the specious and evasive letter of Mr. Robbins in explanation and defense of the practices of the elevator companies, the general public will not for a moment doubt the truth of Gen. Washburn's incidental remarks, which were the occasion of Mr. Robbins' letter. This is what Gen. Washburn said: "There has been a great deal of complaint made in the country in the past two or three years against the extortions of the millers' association and the different elevator companies. So far as the millers are concerned I do not see how ever they have received any benefits from the alleged abuse in handling grain. I am told that the elevator companies have been in the habit of making large margins between the prices paid for the wheat in the country and the markets here and Duluth; sometimes, I understand, they have operated on a margin from 6 to 9 cents on a bushel, really getting more for the little they did in connection with the wheat than the railroads for hauling it, or the millers for milling it." Mr. Robbins writes a column and a half in very high-keyed language as a reply to what Gen. Washburn merely remarks in a sentence or two that he has been told. But, curiously enough, Mr. Robbins does not deny the truth of the rumor. He beats about the bush most ingeniously, and makes the elevator companies out as modest and virtuous if not philanthropic. Of course he omits all allusion to the practice of doctoring grades and the other devices by which the elevator companies do actually in many cases get more profit out of the grain than the railroads get for transporting it or the mills for converting it into flour—and not infrequently more than both together. As we remarked two or three days ago, there has been an improvement under the operation of the new railroad and grain laws, and the downright robbery that was formerly the result of collusion between the railroads and the elevator companies is not so gross and flagrant as in days gone by. But it is a hard thing to break up. Of course such reports are often exaggerated, but so long as it is currently understood that Mr. Robbins' own elevator company succeeded in paying for all its elevators and plant out of the net profits of the first two seasons, the most plausible defenses that this gentleman can make for the system and its methods will be received with coldness and skepticism. When these gentlemen, whose investments are supposed to be paying them 40 per cent. a year and upward come forward at the opening of a legislative session to explain how much better for the dear farmer their system is than one recommended by the Governor, they must expect the thing to be regarded as an instance of "the Greeks bearing gifts."

The success of the proposed plan during the past month as voluntarily put into operation on the new Minneapolis & Pacific line, is highly pertinent, and ought to become as well understood by the farmers of the entire state as it is appreciated by those whom the road serves. The company has erected grain elevators at all its stations, but it does not buy wheat or have anything whatever to do with influencing the grain market. It has its open transportation rate from all stations to Minneapolis, and treats the smallest and largest shippers exactly alike. Its charge includes a sum large enough to cover the actual expense involved in maintaining the elevator and insuring the grain. This part of the charge is not made in the case of grain handled through other warehouses or loaded directly into the cars. The company's agent issues the shipper a receipt for the proper number of bushels of wheat of the proper grade, and a like amount is delivered at Minneapolis to the bearer of the receipt. The farmer does not, however, have to employ a commission man to sell for him in Minneapolis. He finds buyers at every station ready with the cash to take his receipts. He is

not ignorant of the Minneapolis prices, for the company posts up telegraphic price bulletins every day or several times a day, showing the selling prices here. Having paid their freight, the farmers sell their elevator tickets at the highest Minneapolis prices, one and a half cents per bushel being deducted by the purchaser as his margin for advancing the money and doing the business. There is nothing arbitrary about this commission, but it seems to have been agreed upon as fairly covering the cost. We are informed that the purchasers of the tickets are millers. The producer thus comes into immediate contact with the consumer and gets the benefit of the full market price, keeping several cents a bushel, which middle men would otherwise have taken out of their pockets. The farmers in reach of the Minneapolis & Pacific road are to-day saving four or five cents a bushel by this system.

The advantage to the producers is obvious. The miller simply pays the Minneapolis price for his grain; but he is better off than if he had bought it of an elevator company, because he gets it "undoctored." The road delivers what it receives. If it receives at a given elevator ten thousand bushels of No. 1 hard and ten thousand bushels of No. 2 hard, it delivers equal quantities of the two grades, while Mr. Robbins would probably have the enterprise to deliver fifteen thousand bushels of No. 1 hard that would just pass inspection and five thousand bushels of the lower grade, to the manifest profit of the elevator company and the equally manifest disadvantage of the consumers, *i. e.*, the millers. We have made it plain why the miller who buys hard wheat just as the farmers ship it, gets much more for the same money than if he bought it of an elevator company, while the farmer gets more money by doing away with the middle man's profit and selling directly to the consumers.

Such a system operating throughout the state would restore the railroads to their proper places as common carriers. It would give the farmers direct access to the market. It would break up the literally degrading practice of "doctoring" grades. This would result in great advantage to the farmer because it would raise the price of a given grade. All the grain that is better than a certain minimum quality is No. 1 hard. The market price for No. 1 hard is determined by the worth of the minimum specimen because the elevator companies grade down the minimum. The farmer is paid for the minimum quality and the elevator companies steal all the value above that minimum. Evidently, if there were no mixing of grades by the dealers, No. 1 would sell in the market for what the farm samples of No. 1 were actually worth on the average. And the average No. 1 as sold by the farmers is a great deal better than the No. 1 which is put on the market by the dealers.

Whether made compulsory by public statute or not, it looks very much as if the reform we advocate would have to come about. The Minneapolis & Pacific has virtually made the law for the other roads. Its system is so much to the farmer's advantage that competing roads in its territory must in time adopt practically the same arrangement. If our entire Northwestern wheat area was served in the same way the farmers would be better off by several million dollars a year. Two million dollars would not cover the amount they lose every year through the "doctoring" practice; and probably nearly as much would be saved by the abolition of other practices alluded to in the circular General Manager Manvel was obliged to issue to the station agents of the Manitoba road a few weeks ago, in which he charged them to prevent so far as possible the extortion of the elevator companies.—*Minneapolis Tribune*.

A BOLD OPERATOR.

The boldest speculator on the Produce Exchange is a mild-mannered, unassuming man named N. G. Miller. He is as quiet as a Quaker, and as bold as a lion. No Chicago speculator has more nerve, and this is saying considerable. Mr. Miller is a gentleman, and this is also saying considerable when speaking of the Produce Exchange, where a rustic boorishness is only too noticeable, where the bristles of a semi-porcine origin seem too often to pierce through the fine clothes. Bret Harte, in the "Luck of Roaring Camp," points out that the most courageous man there was distinguished by a soft voice and retiring manners, and in the roaring camp of Produce Exchange speculation N. G. Miller is at once the most unassuming and the most intrepid of operators. He has attracted considerable attention of late by his enormous sales of wheat. For four days recently he sold 300 boat loads of wheat each day. That would reach nearly 10,000,000 bushels. He at first sold 2,500,000 bushels of long wheat which he held in the office of a Wall Street house, and then he continued to sell in large blocks, with the view, it is understood, of depositing the price, and to get a fresh hold for another upward turn. He has been a bull on wheat for some weeks. He is a man of perhaps 52, with mild blue eyes, and would not seem out of place as an exhorter. Mr. Miller has had a varied and not uninteresting business career. He came from Connecticut, and at one time was in business in Chicago, in partnership with Lindbloom. He established a branch house here, but, having a dispute with Lindbloom, severed his relations with that individual. In 1879 he was associated with James R. Keene in the famous lard "deal," and he was also identified at one time with E. A. Kent in some speculative transactions in wheat, which led to a lawsuit on Mr. Kent's refusal to render an accounting. Mr. Miller was awarded by the jury nearly \$100,000. He had ups and downs, at times being quite wealthy. He owned real estate in Connecticut, Pennsylvania and elsewhere; he once came into possession of a newspaper in Pennsylvania in the settlement of some obligations due him, and also, I believe, some mining property.

Press Comment.

THE INTER-STATE COMMERCE BILL.

Some of the critics of the Inter-State Commerce Bill profess to be very much disturbed by the apprehension that the long and short haul provision will work injury to the farmers of the West, and that the short-haul charges will be made the basis upon which the long-haul charges will be made up. The natural competition of the railways with each other and with the water lines will put any such result out of the question. The raising of this bugbear is only an ingenious expedient for diminishing the Western support of the bill.—*New York Journal of Commerce*.

DISCRIMINATION.

Duluth should pay more to have wheat and flour carried to Chicago than do Minneapolis and St. Paul, and our business men should take active measures to bring about a reduction. Only on Friday last a Duluth firm sold 200 cars of wheat for export from Minneapolis, which would undoubtedly have gone from this city had we had equal freight rates with Minneapolis. The grain men of that city are of course anxious to retain their wheat business, and to do so are taking every possible advantage of transportation lines. They have built and are building new roads of their own and using every method to control roads. What are our grain men doing to offset their efforts? The new South Shore line will give us the best rates to the East, but it can not help us this winter.—*Duluth Daily Trade*.

WHO SAYS IT IS NOT CHEAP?

The crowd of wheat traders in the leading grain marts is rallying to the bear side, selling it right and left, and putting the market in a condition to be reconstructed by the bulls, whenever they consider the war path ready. Whoever supposes that 84c. to 85c. for No. 2 wheat at Chicago for May, with a water freight to Europe, is not cheap, we fear will be greatly disappointed. A good deal is said of India as a rival exporting country. It is said to be a bear symptom that no one claims a short crop over there. But India will increase her consumption at home as fast as she increases production. The condition of the silver market the past year has enhanced the exports, but silver is now stronger, and is tending upward, and on a par currency India can not compete with us in producing wheat.—*Toledo Market Record*.

GOV. MCGILL ON INSPECTION

One of the most frequent and serious complaints among wheat producers and dealers in grain is the difficulty of procuring anything like uniform grades at different times and places—too often, indeed, at the same time and place—on wheat of the same kind and quality. The Railroad and Warehouse Commissioners have done much to lessen the evil, but there is still wide room for improvement. If possible, the inspection should be made by persons not only disinterested in the result, but without knowledge of the ownership of the grain or of the probable purchaser—or, indeed, of the person or persons interested in commissions on it. Under conditions of this kind I am satisfied that the surprising and inexplicable differences in official grades of wheat of the same variety and quality would rarely occur. Every avenue to dishonest practices should be closed by the law where possible. With the door to favoritism left open, dissatisfaction will prevail, even in the absence of actual fraud.—*Inaugural of Gov. McGill, of Minnesota*.

RAILROAD COMMISSIONS.

The new Inter-State Commerce Bill makes the commission an advisory board like the state commission and empowers them to try their cases in the United States courts; but it goes further and empowers them to suspend the law in certain cases. This power of suspending law is one that even kings and presidents are allowed to exercise only in special cases, as when in times of great national peril they proclaim martial law and suspend all laws conflicting therewith. Now it is proposed to put this power of suspending law in the hands of five men, to be used in their judgment. But who are to appoint these five men clothed with such kingly prerogatives? A president whose financial administration has been run in closest sympathy with Wall street? Who confirms them? A Senate composed for the most part of millionaires.

A commission to hunt up evil-doers and turn them over to the courts is one thing, a commission to examine bridges and collate statistics, and try petty cases, and give advice, is another; a commission having kingly prerogatives is a third and altogether different thing. And yet they all go by the same name.—*Iowa Homestead*.

THE INSPECTION CONUNDRUM.

The Board of Railroad and Warehouse Commissioners of this state is at present engaged in the attempt to solve the inspection conundrum, which is apt to crop up every year about this date and demand a solution. This time there would appear to be a little more occasion for the plaint than usual. The corn crop of last year was secured in good condition, and much the largest part of it is really dry, while the inspectors are alleged to be extraordinarily strict because of a little too much laxity a year ago. The Commissioners will perhaps do well to order a slight relaxation of the interpreting of the rules by the department. But it may be as well to remember that the one great reason why our corn market is dull just now lies in

the fact of heavy and unjust freight discriminations against this city by the railroads. So long as the carriers are willing to perform the service for others farther off at fully three cents per bushel less than they charge to shippers from Chicago, a change in the inspection to benefit the trade to the extent of one cent per bushel would prove of little value. The men who are engaged in the grain business here would consult their own interests by making a "dead set" upon the railroads for justice, and give them no rest, night or day, till that is conceded. The greater evil should be attacked first, and after that it will be in order to attend to the little one.—*Chicago Paper*.

THE ERIE CANAL FIGHT.

There are canal and anti-canal counties in New York. The canal counties are the wealthiest, most populous and most prosperous. The anti-canal counties, in some instances, receive more state aid for their schools and for other purposes than they pay as taxes into the state treasury. Sullivan county, for instance, away from the canals and hostile to canal improvements, pays \$15,000 state taxes, and draws \$22,600 from the state school fund. On the other hand, Albany county pays \$237,000 in state taxes, and draws \$80,000 from the state school fund. It is proposed in some quarters that the canal counties only shall be taxed to improve the canals, and that no county shall draw anything from the state for the support of its schools. The canal counties appear to think that they could well afford to improve the canals if they did not have to keep up the schools in the anti-canal counties.

The New York quarrel is damaging great interests not only in New York, but in other states. The time should speedily arrive when properly constructed steamers could load with wheat at Chicago or Duluth—or anywhere on the Mississippi after the Hennepin Canal shall have been completed—and could transfer their cargoes in New York harbor to ocean steamers. If the state of New York will not do the work necessary for this great change, the National Government should be permitted to do it without the opposition of New York.—*Chicago Journal*.

UNJUST DISCRIMINATIONS IN FREIGHTS.

A Minneapolis paper of last Thursday says: "Grain and flour are going through from Minneapolis that pay about 30 cents only from Minneapolis to the coast instead of 7½ cents from Minneapolis to Chicago and 30 cents from Chicago to New York." Private information from the same city tells that sixty carloads of wheat were contracted for last week to go to Baltimore at the same rate as is charged to carry it only from Chicago. It is also reported on good authority that wheat is being taken from St. Louis to New Orleans for 14 cents per 100 pounds, by rail to Cairo or Belmont and thence by barge. The nominal rate by rail from St. Louis to New York is 34 cents per 100, but this is understood to be extensively cut in order to meet the competition by the water route to the seaboard.

Meanwhile there is no intimation that any one hereabouts is able to obtain the slightest concession from the 30-cent cut-throat rate which went into effect last week. It is not impossible, and in fact rather probable, that a few favored individuals are privately permitted to do business at lower figures, but if so this only makes the arrangement more unjust for the rest. This news and that of the last few days point unmistakably to the fact that the ordinary shipper of produce from this city to the seaboard is heavily discriminated against in the interest of people who have the good fortune to live further west and north. Commissioner Blanchard admitted the other day that the same rates are charged from Milwaukee as from Chicago to the seaboard. The recent protest of Peoria and Kansas City against the passage of the Cullom bill could have been dictated by nothing else than the fear that it would abolish some of the advantage they have so long enjoyed as compared with this city. It would seem to be about time to hear a similar protest from Minneapolis.—*Chicago Tribune*.

INDIAN WHEAT COMPETITION.

A point for Americans to consider is the question of transportation. In India the government appears to give special attention to this matter. Aside from its great navigable rivers, for the improvement of which millions have been expended, it is the great promoter of railways, and has reduced the cost of grain transportation 40 per cent. since 1873. In some cases where the roads run into the great valleys of the rivers the rates are made so low that steamboats cannot successfully compete with the railways. In America it is the exorbitant freight and warehouse rates from the harvest fields to the seaboard that are keeping our farmers poor, yet every effort to lighten that burden causes such an outcry from would-be economists and the great transportation companies that little or nothing is accomplished. The Hennepin Canal, which, it has been shown times without number, if constructed, would save the West and Northwest millions of dollars every year, has been knocking in vain at the doors of Congress for years, only to be put off with a few thousand dollars for some engineer to make a survey. Such trifling with great interests cannot continue always, even though sustained by great corporations and combined capital. The people are the ultimate source of power and cannot be always hoodwinked.

It will not do to think of this Indian competition as ephemeral nor that it has its full development. America has been wont to boast of her own virgin acres that were inviting the plow and the husbandman, but they are growing rapidly fewer, and it will not be many years before the emigrant will look for them in vain. In the lives of those now living all our fertile lands except those held by speculators will be under the plow, the harrow, and

the harvester of the most improved patterns. In India there are still millions upon millions of acres uncultivated, and those acres that are under cultivation are so poorly cultivated, and with such poor machinery, that it is said that by proper cultivation the yield could be more than doubled. Thus it seems probable that the future wheat yield of India is only foreshadowed by that of the past few years. European agriculturists are alarmed at this great influx of cheap breadstuffs, purchased with depreciated silver, and produced by cheap labor on cheap land. If they raise the cry that "Hannibal is at their gates," shall not Americans, who are certainly as deeply interested, do something to provide against the emergency?—*Inter-Ocean*.

A "STUMPTAIL" PERVERSION.

A paper published in Minneapolis chronicles the sale of another lot of 100,000 bushels of wheat sold there last Monday for export. It grows jubilant over the fact, which may be pardoned, but it also assigns a false reason therefor, which is all wrong. It says: "Choice hard wheat is costing but a fraction more than is asked for Chicago stump-tail." The true inwardness of the situation lies in the fact that Minneapolis holders of wheat are able to ship by means of railroad discrimination to the seaboard at the same prices as are charged to shippers in Chicago, while it costs not less than 7½ cents to bring the same grain here from the city near the head of navigation of the Mississippi. Possibly one might be willing to concede that it is "at the head of navigation" if it were not for the unkind and unjust fling at Chicago. As it is, we will assume for the nonce that the St. Paul people are right when they claim that it is they who occupy the distinguished honor, and that the Falls of St. Anthony do not mark the point at which Nature says to the tide of water commerce, "Hither shalt thou go, but no farther, and here shall thy proud waves be stayed."

It is not that the wheat offered for sale in this city belongs to the "stump-tail" order, but that the railroads are badly discriminating against it by offering to carry no better wheat a much longer distance for the same money. Nearly 500 miles of rail transportation counts for just nothing at all when a man in Minneapolis wants to send wheat to the seaboard, but is charged for with conscientious regularity if the same man wishes to ship it to Chicago, while the roads leading east from this point will not abate "one jot or tittle" from pool tariff rates if the grain be billed from this city. Under such circumstances it is very much like an adding of insult to injury to prate about the quality of the goods as an element in the matter.—*Chicago Tribune*.

THE PROPOSED WAREHOUSE LAW IN MINNESOTA.

The proposed law is considerably more stringent in terms than the old, whose general outlines it observes. The commission is clothed with real authority and power to enforce its decrees, instead of being simply an advisory body, with the right to appeal only to the legislature in case of contempt. The railroad companies are required to present full annual reports, to give entire publicity to their rates, and to make no change in existing tariff schedules without ten days' public notice. Discrimination in favor of the large shipper is forbidden, and no company can limit its common-law liability for property carried. The signal change, and the one of doubtful expediency in this section of the law, is that which practically empowers the commission to fix rates. All grain must be inspected upon arrival; and grain put into special bins, being out of condition, is to be inspected when taken out, in order to give the farmer who markets directly from the field the benefit of any improvement in condition during storage. Specific charges are abolished, but those imposed are to be approved by the commission and kept conspicuously posted. The final amendment is a proposed law which will require every warehouse in the state that handles grain for a compensation to take out a license. This makes the system comprehensive by extending the control of the board to all parts of the state, instead of the three terminal markets to which it is now confined and which require more elaborate regulations than smaller points. These acts attest the thoughtful labor which the commission has bestowed upon the vast subject assigned it. They are practical, and they have been evolved by direct experience. We do not believe that the legislature can do much better service for the farmers of Minnesota than by adopting, with the possible exception indicated, the recommendations of the body which is now serving acceptably the public interest.—*Pioneer Press*.

In Milwaukee A. K. Shepard resigned his membership on the committee of grain supervision and J. A. Bayden, was appointed to fill the vacancy. At the business session of the Chamber of Commerce, Mr. Shepard said that he desired that the correspondence between himself and Secretary Langson, in regard to the resignation, be read. His reason for resigning would then appear. The first letter was from Mr. Shepard to Secretary Langson, in which the writer tendered his resignation as a member of the committee on grain inspection. The reason given by Mr. Shepard was that he could not act on a committee, the chairman of which had tried to induce the members of the committee to report declaring grain stored in his elevators to be musty when he asserted that the grain was in good condition. The second letter was from Secretary Langson to Mr. Shepard, stating that the board of directors wished him to withdraw his resignation, and saying his letter had been sent to Angus Smith, as chairman of the committee, and inclosing Mr. Smith's answer. The third letter was from Mr. Shepard, who said Smith had misconstrued a statement made by the writer, and concluding with a refusal to further serve on the committee.

PEORIA'S GRAIN TRADE.

In the year 1870, according to the first annual report of the Peoria Board of Trade, the receipts of grain at that point were as follows:

	Bushels.
Wheat.....	2,562,176
Corn.....	4,123,361
Oats.....	1,302,351
Rye.....	339,293
Barley.....	121,793

Total all kinds of grain, 1870.....8,448,954

For 1886 receipts were over 20,000,000 bushels. The total elevator capacity then was 175,000 bushels; now it is 2,500,000 bushels, or more than fourteen times as great. Then the number of railroads was five; now it is ten

ARTICLES.	RECEIPTS.		SHIPMENTS.	
	1885.	1886.	1885.	1886.
Wheat bus.....	368,945	486,385	164,620	277,565
Corn, bus.....	8,630,355	6,627,510	7,087,500	3,309,350
Oats, bus.....	13,291,430	12,182,670	15,408,720	11,729,205
Rye, bus.....	462,065	327,050	147,045	179,035
Barley, bus.....	703,800	628,710	159,890	160,930
Seeds, lbs.....	434,900	843,400	479,300	701,000
Broom Corn, lbs.....	1,509,400	412,400	965,960	209,400

The gain in business since 1870 is great, but the returns for 1886 are not as satisfactory as in 1885. For this there are a variety of reasons, some of which are common to all of the leading shipping points. One of these is the tendency of railroad managers to divert grain from "pooled points" and ship grain directly from country points to destination. Another is, that the crops of Ohio and Indiana were abundant and matured early, and being near the Eastern consumers, the shipments from that section have supplied a demand that will get West later in the season. Besides this, the crops in Eastern Iowa are deficient, and farmers there, instead of being shippers as usual, are now buying grain for their own use from the western portion of that state. This naturally cuts off a source of trade that ordinarily is large. Still another reason is, the marked disposition among both farmers and grain dealers to hold grain for higher prices. It is stated that there are more oats stored at stations on the lines of railroad leading to Peoria than was ever before known, and that there are still large quantities held by producers.

DULUTH'S GRAIN BUSINESS IN 1886.

The past year has been the most notable one in the history of Duluth's grain trade from many standpoints. *Daily Trade* was started early in January and was called upon before many weeks had elapsed to record some stirring and important events in the history of the Duluth Board. The very first issue recorded the failure of an operator on the Board, the first of a series of failures which occurred during the earlier part of the year and which seriously injured the business of the Board for many months. Duluth was a bull on wheat nearly all of the last crop year, as was the entire Northwest, and the steady decline of values during the winter caught many over-confident traders. Country speculators, Minneapolis and St. Paul capitalists and a number of Duluthians, all doing the greater part of their trading on the Duluth Board, dropped large sums which generally went into the pockets of Chicago operators and a few fortunate Duluth speculators. The "country" speculators were the most unfortunate of all, and their losses have worked against the option business here to a very great extent, for the country is no longer a large operator here. It is noticeable that the sentiment of the Duluth Board this crop year is very different from that of the last. In the beginning of the last, with but very few exceptions, Duluth grain operators were bulls. At the beginning of the present crop year almost as large a proportion of them were bears. As time passed, however, there has been a change of sentiment, and there are now probably more bulls than bears.

Jan. 2, 1885, cash wheat closed at 91½¢, the highest point of the year. From that time on it declined gradually, though in February and March there was not much of a downward movement. On the 19th of January cash 1 hard sold at 84½¢, the lowest point reached until April 3, when it was sold at 82½¢, from which it quickly dropped to 78½¢ on April 8. On June 16 there was a sale at 74½¢, and on the next day it was quoted nominal at 74½¢—the lowest point of the crop year. From the first of July to the last of August prices ranged from 76½¢ to 83½¢, and on Aug. 31, the close of the crop year, it was at 77½¢. In October cash wheat reached 71¢, the lowest point of the year. It sold at that on Oct. 11 and 12. For the first four months of the present crop year the range has been from 71 to 80, the highest being on Dec. 31. There was a difference between the highest and lowest points of the year of 20½ cents.

The receipts and shipments of Duluth for the past year have not only been the largest in the history of the Board, but have surpassed those of Chicago in the same time, and made Duluth the greatest primary wheat mart of the country. Minneapolis has received more wheat by 10,000,000 bushels, but millions of bushels were turned away from Duluth on account of the lack of elevator room. In another part of this issue will be found the re-

ceipts and shipments of wheat for the year by months, and also the receipts by grades. The following table gives the receipts and shipments here for a series of years:

Year ending Dec. 31,	Receipts.	Shipments.
1886.....	22,643,474	*17,668,171
" " " " 1885.....	14,869,675	14,065,775
" " " " 1884.....	13,722,930	11,551,582
" " Aug. " 1883.....	4,707,803	4,586,908
" " " " 1882.....	3,266,242	3,325,498
" " " " 1881.....	3,332,176	2,865,536
" " " " 1880.....	1,347,679	1,453,674
" " " " 1879.....	1,524,065	1,487,222
" " " " 1878.....	1,803,090	1,782,358
" " " " 1877.....	460,595	503,899
" " " " 1876.....	1,451,190	1,376,392
" " " " 1875.....	1,137,721	1,081,194
" " " " 1874.....	2,407,476	2,424,176
" " " " 1873.....	1,981,453	1,583,173
" " " " 1872.....	931,611	951,046
" " " " 1871.....	556,783	544,848

*To the shipment of this year should be added about 100,000 bushels shipped by Dunn & Thomson from the burned elevators.

The building of the Duluth & Manitoba branch of the Northern Pacific, the St. Cloud & Wilmar and the Aberdeen branch of the Manitoba Road has opened up new territory to the Duluth grain trade, and in turn furnished an outlet here for many communities anxious to send their wheat this way, instead of to Chicago or Minneapolis. This coming year the Manitoba will make further extensions into the Southwest in territory now held by the Milwaukee and Northwestern Roads, and the Black Hills branch of the Northern Pacific will be built, and there will be a much wider area to contribute wheat to our elevators. The Omaha line will also doubtless bring wheat here from the Southwest. The building of the Duluth, Southwest & Atlantic Road will give Duluth a new through Eastern connection, which will tend to give better freight rates and facilities to the East.—*Duluth Daily Trade*.

THE ZENITH CITY.

The attention of some capitalists was directed to Duluth in 1855, but the panic of 1857 and the war which followed soon after delayed operations. In 1869 there were ten or twelve houses in the place and something like a hundred inhabitants, but a boom commenced and in four years the population had increased to 5,000. In 1873, in consequence of the panic, everything came to a halt, and the population fell back to perhaps less than 1,000, and five years passed before Duluth exhibited much enterprise. In 1880, however, one elevator was built, and shortly after the first railroad reached the place. When Duluth first began to think of establishing a wheat market the prospect to outsiders looked almost as dubious as the picture drawn in the satire of Proctor Knott.

What of the business of Duluth now? The figures must make the Kentucky man tremble in his boots. Last year the shipments of wheat from Duluth were nearly 1,000,000 bushels more than from Chicago. This year they bid fair to be 5,000,000 bushels greater. In one month of this year, September, the receipts of wheat at Duluth were three times those at Chicago for the same time; and in the ninety days just past Duluth has handled more grain than Chicago has in the eleven months of 1886. In one day the transactions on the Duluth Board exceeded 6,000,000 bushels. The coal unloaded at Duluth docks in 1878 amounted to 31,000 tons. In 1885 it reached 395,000, there being employed in this transportation from the East to Duluth 131 steamers and barges. Many cargoes were brought from Lake Erie ports at 25 cents a ton. The official valuation of realty and personalty in Duluth was \$791,695 in 1880. The assessment recently made gives a total valuation for 1886 of over \$15,000,000.

But this is not all. Duluth has a splendid harbor. Nine of the largest vessels in the lake trade can load and unload at one time. Her warehouses have a capacity of 200,000 barrels. The flour warehouses are said to be the largest in the world. They cover five acres of ground. In the handling of wheat Duluth challenges the world. One elevator has a record of unloading twenty-seven cars an hour for four consecutive hours. Vessels with tows have arrived at 2 P. M. and cleared at 6 P. M. with 150,000 bushels of wheat put on board in the time. In 1880 Duluth received 1,347,679 bushels of wheat. In 1885 the receipts were 14,286,307. From Aug. 15 to Nov. 1 of this year the receipts were over 11,000,000. The zenith is not yet reached. The Minneapolis mills have a daily capacity of 64,000 barrels. Chicago has three mills, and a daily capacity of 2,000 barrels. Plans have been drawn, and three-fourths of the capital subscribed, for a mill at Duluth which will grind 6,000 barrels a day. Wheat will go into the mill from the cars on one side, and flour out of it on the other side into the steamship. The receipts and shipments of flour from Duluth by lake last year were 1,155,044 barrels; in 1880 the shipments were 350,000 barrels. In 1880 the railroads did a traffic business at Duluth of 173,000 tons; in 1885 the freight delivered and received by rail at this place reached 1,088,183 tons.

Thomas B. Oliver, of Milwaukee, says the stocks of wheat in elevators in Minnesota and Dakota have been grossly exaggerated, as they do not exceed 10,000,000 to 12,000,000 bushels, instead of 22,000,000 bushels, as the millers have reported, and that the supplies in farmers' hands do not exceed 30 per cent. He also says that New York exporters bought 150,000 bushels of wheat direct from Minneapolis dealers, which will be immediately forwarded to the seaboard by rail.—*Duluth Daily Trade*.

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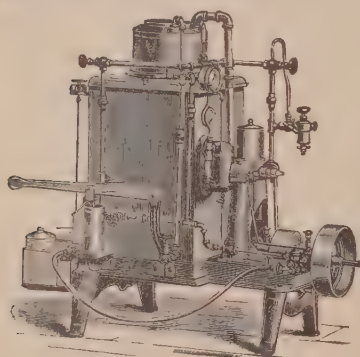
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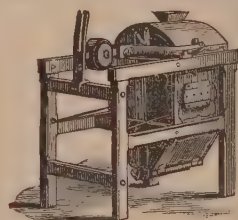
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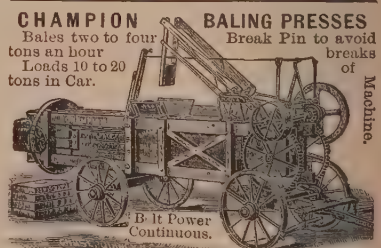


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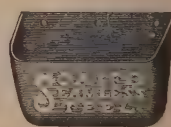
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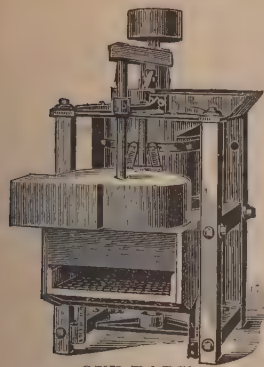


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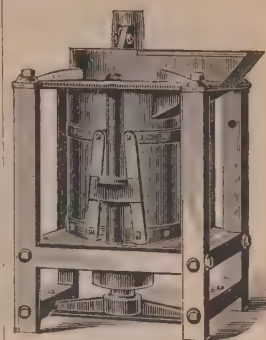
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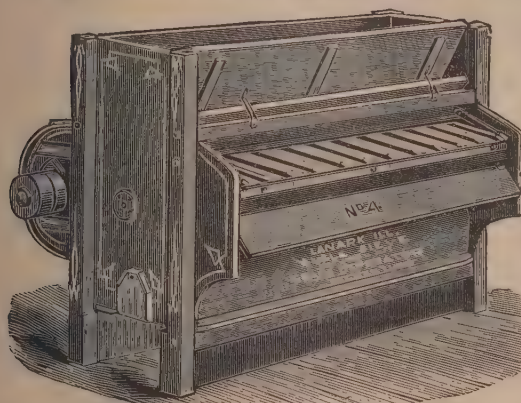


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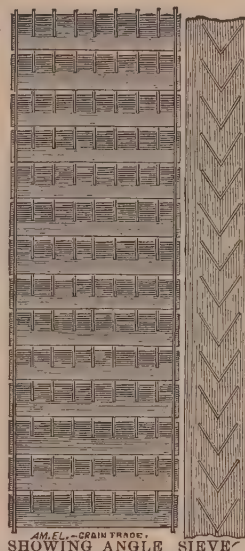


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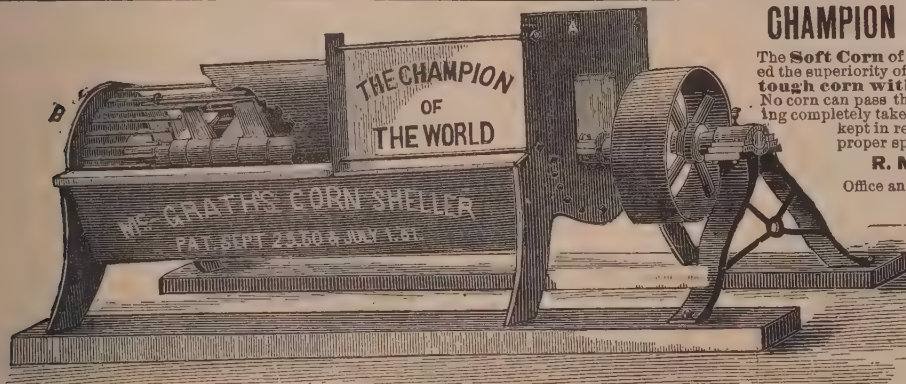
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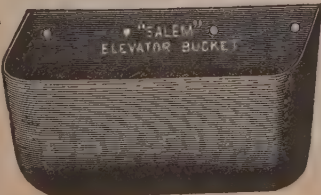
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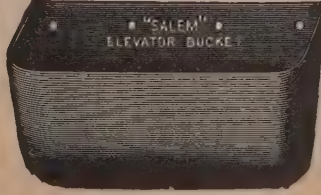
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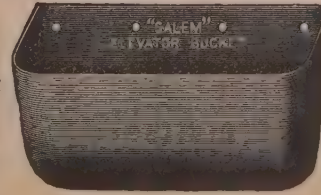
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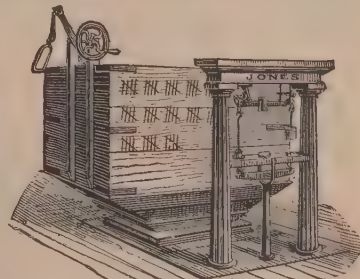


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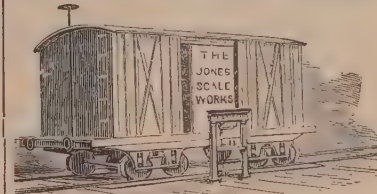


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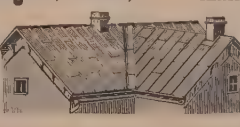
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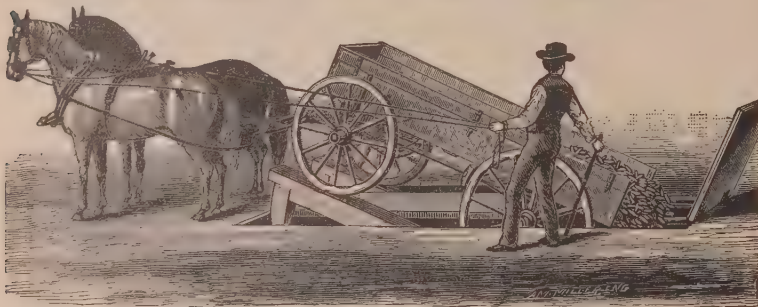
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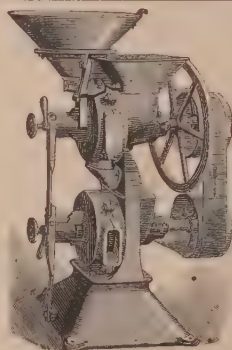
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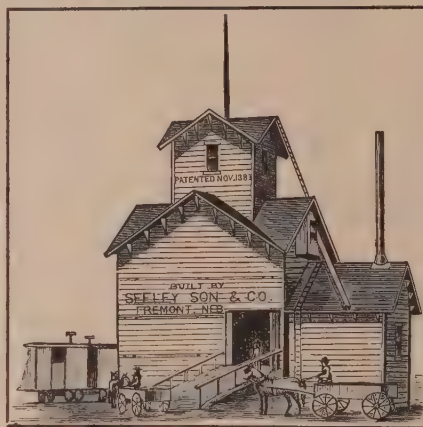
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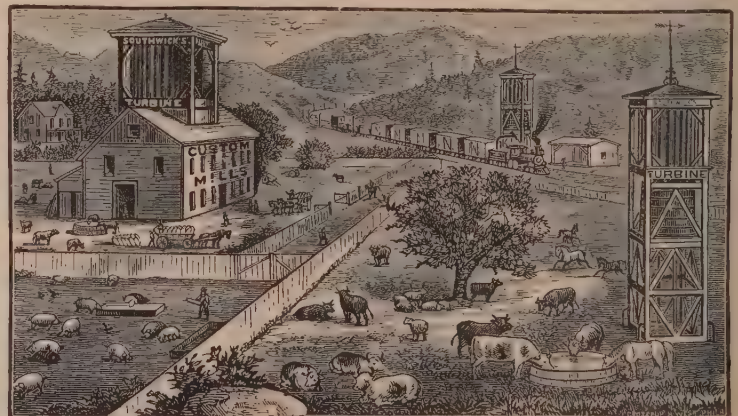
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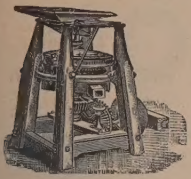


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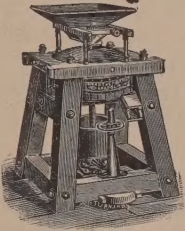
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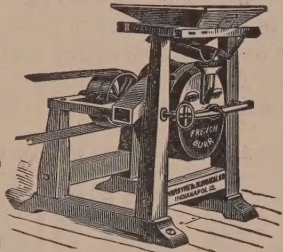
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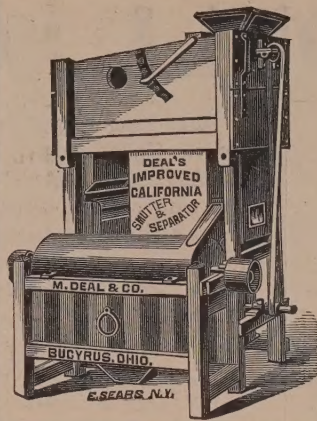
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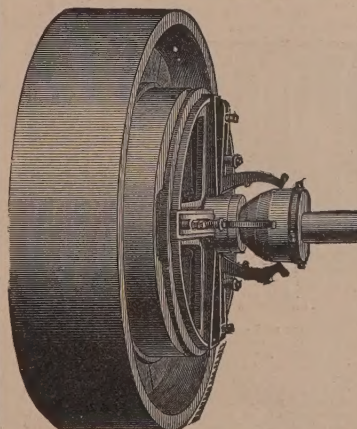
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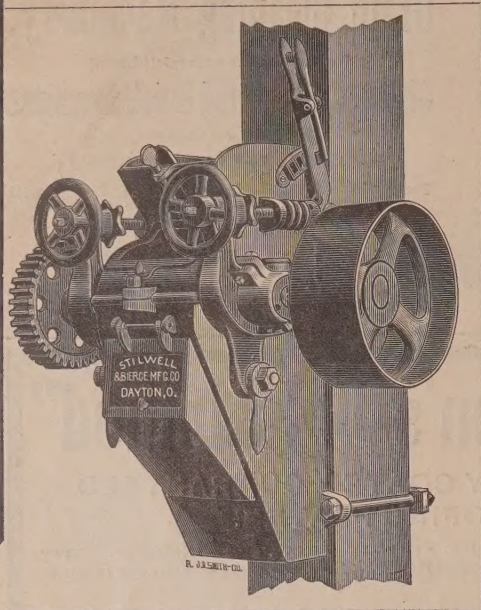
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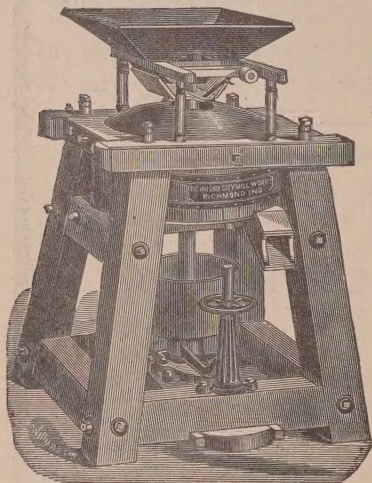
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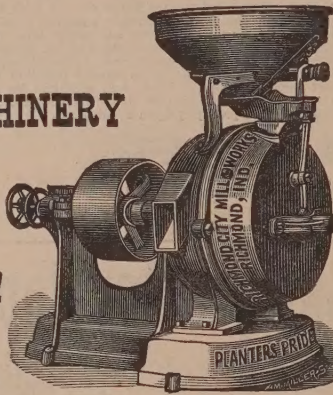
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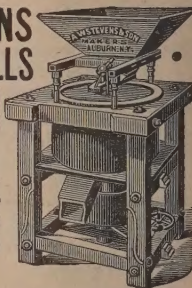
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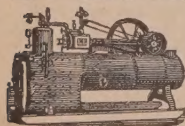
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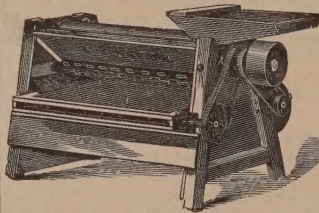
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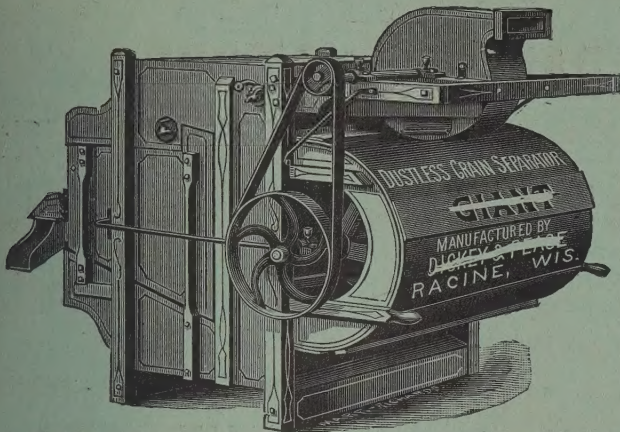
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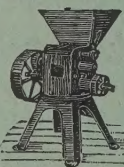
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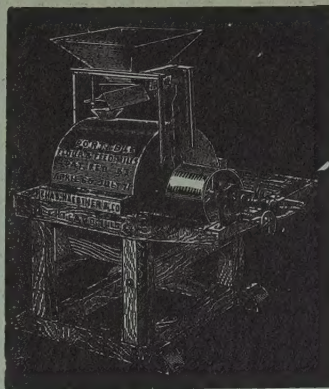


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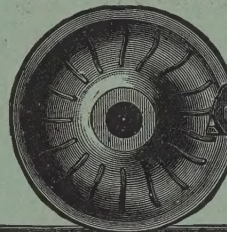
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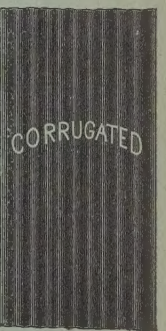
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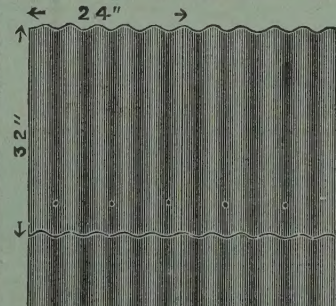
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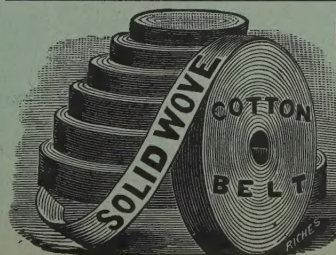
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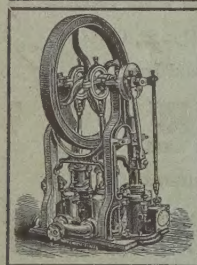
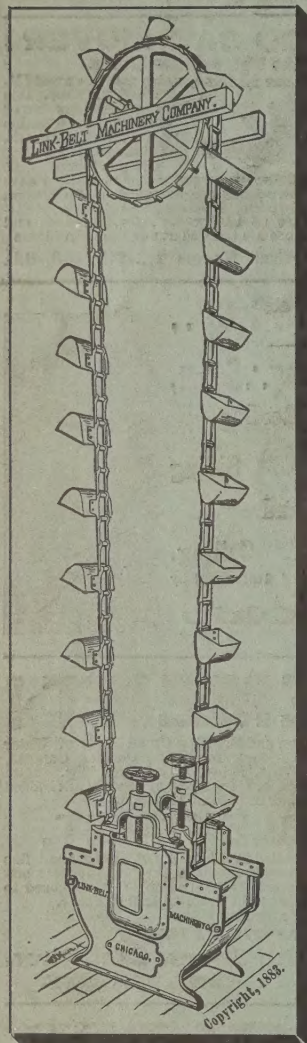
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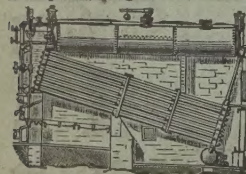
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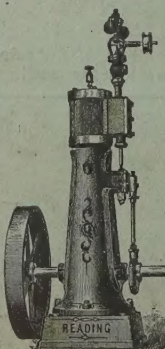
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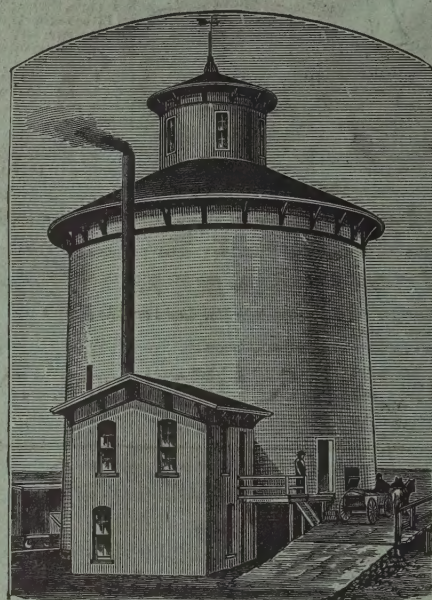
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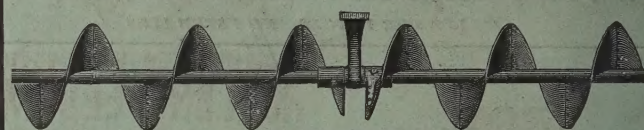
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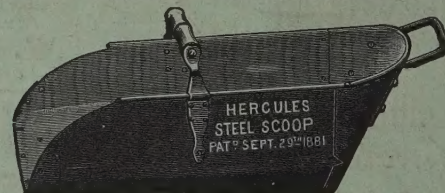
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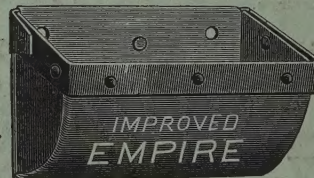
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